



ELKWATER TOWNSITE DEVELOPMENT PLAN DRAFT

Cypress Hills Provincial Park



- A. Summary of the Department of Recreation and Parks response to the issues raised at the November 1985 public meetings regarding the Elbow River Townsite Concept Development Plan.

PRIORITY	ISSUES RAISED AT PUBLIC SESSIONS	RESPONSE BY DEPARTMENT	TOWNSITE PLAN PAGE REFERENCE
1.	Development and upgrading of the ski hill.	The Provincial Government has announced a \$3,000,000 ski hill upgrading program commencing in 1986/87 which will cover a three year period.	69
2.	Development of a public swimming pool.	The Department recognizes the uniqueness of Elbow as a townsite in the Alberta Provincial Parks System as well as the role that it plays as a community centre for the surrounding area. Based on this, the Department supports the development of a public swimming pool if local municipal authorities and/or local organizations are willing to enter into a joint venture arrangement and pay a portion of the cost of the facility. Management of the facility would be through a group or organization other than the Department of Recreation and Parks. While an indoor pool would be the most desirable for the various user groups, the type of pool to be constructed would be the subject of negotiation between the Department and the local municipality/organization. The apportionment of cost for such a development would also be the subject of negotiation.	75
3.	Lake user management was seen as required on Elbow Lake.	Many of the concerns expressed were of an operational nature and hence are not addressed in the revised townsite plan. However, the Department has moved to institute an 8 mph/13 km/h speed limit in the area fronting on the main day use beach. A weed control program has been carried out in the area of the marina. The Department will further investigate the possibility of placing rafts in the lake as take-off points for water skiers. However, the question of liability in providing such a facility will have to be investigated further. The revised plan does provide a water-skiers take-off beach associated with the Lower Fire Rock day use area.	62
4.	A central sewage system was seen as necessary for the Elbow townsite.	The Department will undertake the development of a centralized sewage disposal system on a cost recovery basis.	101

85

5. Commercial developments were supported near the Elkhwater complex area or on the lake's north shore. The main street theme of the draft plan received little support.

The revised plan moves most commercial activity to the area immediately south of the Elkhwater complex. This will dilute the main street theme proposed in the first draft of the plan. The suggestion of moving further commercial development to the north shore of the lake was rejected on the grounds of high servicing costs and isolation of commercial outlets from their prime market on the south shore.

72

6. Development of the proposed riding centre.

The Department supports development of the riding centre.

77

7. Although there was support for the development of additional accommodations, the lake's north shore was seen as better suited for a hotel type development. Others saw smaller scale type accommodation as better suited for Elkhwater.

The north shore was investigated and rejected for resort hotel development based on high servicing costs and isolation of hotel patrons from the attractions and activities at Elkhwater. The Department, therefore, retained the location in Block 14 as the most suitable for resort hotel development. Similarly from an economic viability point of view, the Department retained the 50 unit complex, with possible small boutiques associated as the desirable scale of such development.

95

8. The main transportation concerns were the Highway 41 park entrance, the Ferguson Hill Road's one way designation and it's lack of a separate footpath, the proposed main street realignment, along with with the townsite parking problems and general traffic congestion.

The Department will undertake negotiations with Alberta Transportation to alleviate the safety concerns at the park entrance. As the Ferguson Hill Road is narrow and winding the Department will designate the road one-way southbound during the summer season for non-camper traffic. This will reduce the potential safety hazard for vehicular and pedestrian traffic on Ferguson Hill Road and will also allow the Department better access control to the campgrounds. The Department will look at providing a separate footpath from the Ferguson Hill and Lodgepole campgrounds to the core area as funding permits.

Over the long term the Department will continue to push for the realignment of the main thoroughfare along 4th Street and 4th Avenue, in the interests of public safety, in order to reduce non-cottage traffic within the cottage subdivision. This realignment will also require relocation of the gas station and one cottage, the terms of which will be negotiated with the leaseholders. Parking problems along the waterfront will be alleviated through the creation of a new parking lot west of the marina.

PRIORITY ISSUES RAISED AT PUBLIC SESSIONS

RESPONSE BY DEPARTMENT

66

The plan continues to call for a common location for all community facilities in the area of Block 19. Relocation of the community hall and the Alliance Church will be negotiated with the leaseholders.

9. The proposed common location for all the community facilities was supported, although a strong minority opposition was noted. They would like these community facilities to stay in their present location.

87

The plan proposes the infilling of suitable vacant lots. The Department's policy of non-permanent residency in parks will remain.

10. There was support for infilling of the vacant cottage lots. A strict enforcement of the Park's policy against permanent residency was seen as necessary by some, while others wanted to see more year-round usage of the cottages.

49

Ferguson Hill and Lodgepole campgrounds have been upgraded and the plan calls for further improvements in Beaver Creek and Fire Rock campgrounds. No new overflow areas are proposed for establishment within the townsite. However, the park master plan of 1981 identifies a location on the Jackpot Road as a recommended overflow area which will be developed if acceptable proposals are received for the development of commercial recreation facilities in the current location of the Elkwater overflow area.

11. There was support to have all campgrounds upgraded. Overflow areas cannot all be within the townsite. The senior citizens' apparent abuse of their free camping privileges was a concern.

The issue of senior citizens' camping privileges is an operating concern that will have to be addressed on a provincial basis by the Department.

-

The interior of the visitor centre has been renovated; this has resulted in a noticeable increase in use in the last two years.

12. The visitor centre facility was recognized as underutilized.

-

The Department agrees and will continue to encourage the leaseholders to offer off-season use of these facilities to other groups.

13. The private group camps were seen as providing an important function to the Elkwater townsite.

PRIORITY	ISSUES RAISED AT PUBLIC SESSIONS	RESPONSE BY DEPARTMENT	TOWNSITE PLAN PAGE REFERENCE
14.	Expansion of the walking/bicycling trail network was supported. Many noted that horseback riding trails should be kept separate from the walking/bicycling trails.	The plan calls for expanded trail opportunities in and around the townsite. Horse trails are separated from those with other uses.	64
15.	The Provincial government was seen as initiating development in Elkwater with major recreation facilities being provided first. Then the private sector would develop associated commercial operations.	The government has made a key commitment in upgrading the ski hill. This will increase the attraction of Elkwater as a year-round recreation resort which, in turn, should increase it's attractiveness to private sector investment in accommodation and retail services.	69. 120
16.	a. Better management and possibly expansion of the marina was favored. The nearby beach was noted as needing improvements. b. The need for more stoves at some of the other day use areas was also expressed. This also applies to the group day use area. More protective shelters were also seen as necessary here.	Beach improvement has been ongoing and is identified as a requirement in the townsite plan. Marina expansion is not being proposed as the lake already has considerable motor boat use. Rental of mooring space at the marina is being reviewed by the Department with a view to making it more equitable. The Department will add stoves and modify existing shelters in the group day use areas as funding permits.	58
17.	The need for more public input into the review of the revised draft plan has been expressed.	A second session for public review of the plan is scheduled.	-
18.	The implementation of a park entrance or day user fee has been suggested.	The Department reviews it's fee structure on an on-going basis. However, the introduction of day-use charges will require a government decision.	-
19.	Suggestions were given as to possible year-round park events and activities	Increases in special activities are promoted in the plan.	66

Additional revisions to the Elkwater Townsite Development Plan undertaken by the Department of Recreation and Parks since November, 1980.

REVISION	TOWNSITE PLAN PAGE REFERENCE	RATIONALE
1. Accommodation. The type of fixed-roof accommodation development in Block 18 may be either condominium or rental. (Previously only condominium development).	83	Providing an option on the type of accommodation will allow the private sector to develop the most feasible one.
2. Service Station. The service station will be relocated in either Block 16 or 17. (Previously located in Block 14).	86	Elimination of the commercial development in Block 14 (with the exception of the motel) necessitates the relocation of the service station to another site near the entrance to the townsite and on the main thoroughfare.
3. Trails. Additional trail development from the townsite to the: - Ski Hill - Boy Scout Camp - Park Group Camp	64	Trail development will provide an alternative to automobile travel, and will tie the three facilities more into the townsite.
4. Overflow Campground. The overflow campground will be relocated to a site off Jackpot Road, north of Elkwater Lake.	57	The existing area is required for the development of the Elkwater Recreation Centre. Relocation of the overflow campground is outlined on Page 40 of the 1981 Cypress Hills Provincial Park Master Plan.
5. Lake Management. A waterskiing take-off point will be developed near the Lower Fire Rock Day Use Area.	62	Providing a waterskiing take-off point on the west end of the lake will remove this conflicting use from the vicinity of the main Elkwater waterfront.
6. Cottage Priority. All cottages will be placed in the Priority Area Four. Cottages requiring acquisition to implement the plan will be acquired on an as required basis, and the leaseholders will have the option to relocate in the townsite. (Previously all cottages were classified in Priority Areas 1, 3 and 4).	89	One of the plan's goals is to have "the townsite remain a viable community for not less than the next 40 years". Priority 4 leases will have a stabilizing influence on the townsite.

REVISION

RATIONALE

7. Sewage Treatment.

Expanded sewage lagoons will be the preferred sewage treatment method.
(Previously a sewage lagoon or Rotating Biological Contactor were recommended).

104

The expanded sewage lagoon system is more cost efficient (both capital and operating). The existing lagoon, according to Alberta Environment, is not leaking as previously indicated and, therefore, does not require replacement.

104/104

CYPRESS HILLS PROVINCIAL PARK

ELKWATER TOWNSITE DEVELOPMENT PLAN

**Alberta Recreation and Parks
Design and Implementation Division
Project Management Branch**

August, 1986

ELKWATER TOWNSITE DEVELOPMENT PLAN

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1.0 INTRODUCTION

1.1 Authority for the Plan

Direction for the preparation of a Townsite Development Plan for Elkwater came from the 1981 Cypress Hills Provincial Park Master Plan, which states:

"A townsite development plan will be produced in the near future. It will specify development and maintenance standards for all facilities in Elkwater and will outline plans for utilities and services, commercial operations, and community facilities".

(Page 79)

Consequently, in 1982 the Minister of Recreation and Parks directed the Department to undertake the preparation of the Townsite Development Plan in accordance with the direction of the Master Plan.

1.2 Plan Area Boundaries

The boundary of the study area for the Elkwater Townsite Development Plan is shown on Map #1. The plan area, totalling 496 hectares, corresponds to the 'Facility Zone' (1182 acres/473 ha.) and 'Cultural Zone' (32.5 acres/13 ha.) as outlined in the Cypress Hills Provincial Park Master Plan. The boundary therefore not only covers the townsite, but also includes other areas and facilities which form an integral part of the townsite, such as the ski hill, rodeo grounds, and campgrounds. The townsite plan area represents approximately 2.4% of the total area of Cypress Hills Provincial Park.

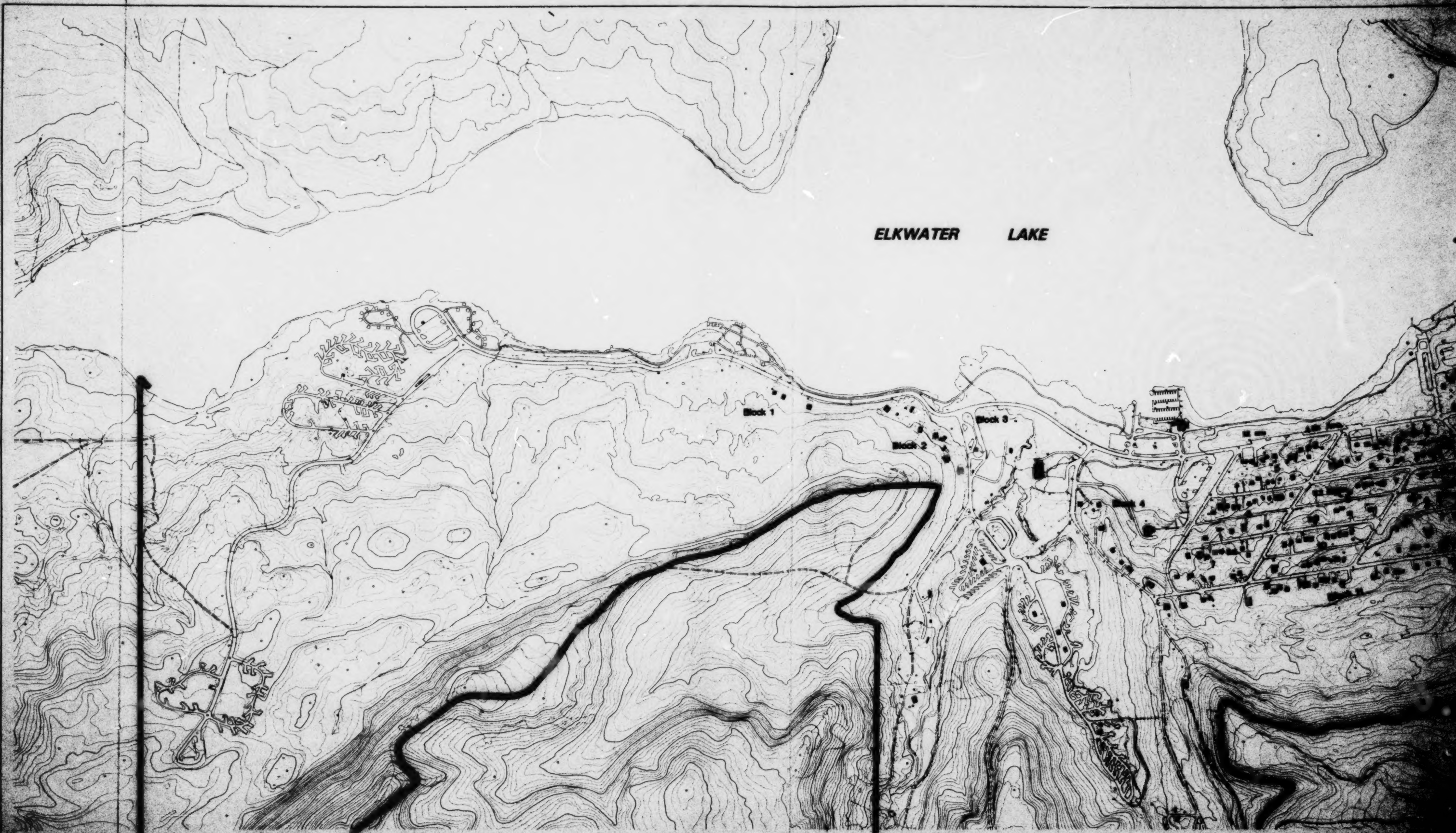
1.3 The Planning Process

The planning process for this study began in 1982 with the direction by the Minister of Recreation and Parks to proceed with the preparation of an Elkwater Townsite Concept Development Plan. Subsequently, the Department retained a private consulting firm to prepare a conceptual plan for the townsite, outlining feasible options for its development and management.

The conceptual plan was prepared under the direction of the Department, in co-operation with other Departments and agencies. A Steering Committee, comprised of staff from various Divisions within Alberta Recreation and Parks, provided direction and interpretation on various policy issues. Meetings were held with the Cypress Hills Provincial Park Advisory Committee in order to discuss the planning process, why the concept plan was necessary, to receive comments, ideas and input from the various member organizations and to review drafts/recommendations of the townsite plan. Various alternative strategies for the future development of Elkwater were discussed with the Advisory Committee. After the comments and requested changes were considered and modifications had been made, a preferred Concept plan was presented to Alberta Recreation and Parks officials.

Alberta Recreation and Parks revised the Concept Plan to more accurately reflect departmental policies, and to clarify certain conceptual proposals. Then, in the fall of 1985, the draft Elkwater Townsite Concept Development Plan was presented to the public for their review and comment. The issues raised by the public and affected user groups were identified and prioritized in the report "Elkwater Townsite Concept Development Plan: Public Input Summary Report" produced in January, 1986.



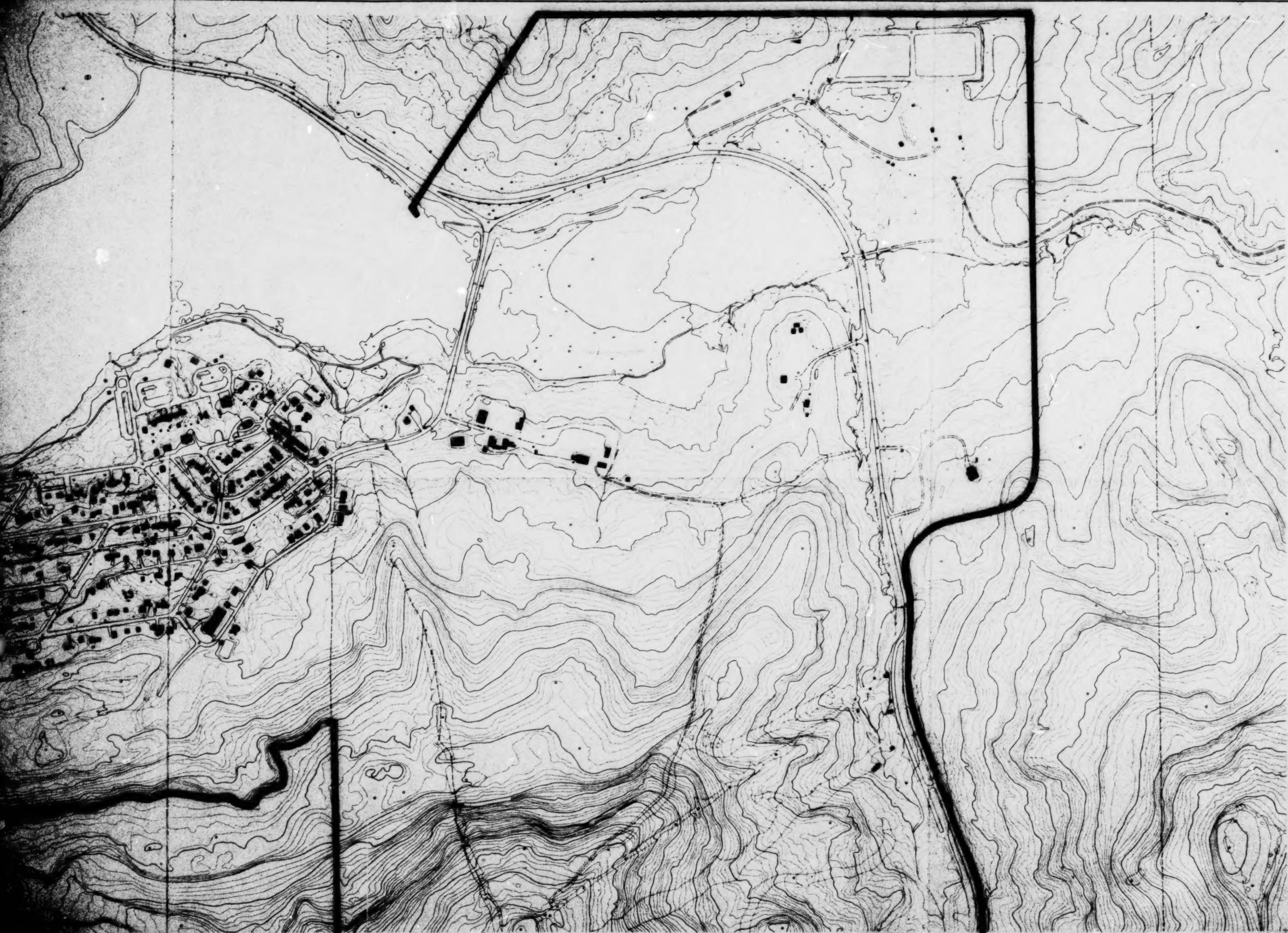


ELKWATER LAKE

Block 1

Block 2

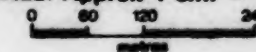
Block 3



ELKWATER TOWNSITE

CYPRESS HILLS PROVINCIAL PARK

SCALE: Approx 1 cm. = 75 m.



Map 1

 STUDY AREA BOUNDARY

The Department subsequently revised the plan, and more concisely spelled out the preferred development scenario for the townsite based on the public input. This has resulted in the production of this draft Townsite Development Plan, which will undergo public review once more before it is finalized.

1.4 Public Participation

In accordance with the terms of reference for the Elkwater Townsite Development Plan, the Department has endeavoured to involve the public extensively in the preparation of this plan. This participation was achieved by the following means:

- a) Ongoing contact with the Cypress Hills Provincial Park Advisory Committee, who provided input and review in the various stages of the planning process.
- b) A one-day workshop where representatives from the various user groups met to outline their concerns, and comment on the plan.
- c) A two-day public information meeting which provided the general public an opportunity to provide direction to the plan.
- d) A newsletter, including comment forms.

Overall, public involvement in the planning process has been high, and has contributed to a Townsite Development Plan which is reflective of public concerns.

1.5 Structure of the Plan

The primary goal of this plan is to establish for Elkwater a short and long range development programme outlining the future role of the townsite as a regional tourism destination centre.

The development of the plan has taken place within the guidelines of current government policy. Further, the plan reflects existing and projected trends in market conditions, recreation - tourism activities, local issues and aspirations, financial considerations, condition and adequacy of existing recreation facilities and services, site conditions in the townsite and the ability of the private sector to take a prominent and increasing role in the financing and operation of services and attractions in Elkwater. As a result of the changing emphasis from public to private sector investment, the plan relates to realistic economic and funding possibilities.

The primary challenge has been to develop a plan and action programme to identify viable commercial opportunities and the problems associated with locating these developments within the townsite, while minimizing the social impact on the existing cottage community.

A major emphasis of this plan is the identification of future land uses based upon the selection of a preferred role for the community by Alberta Recreation and Parks. Objectives, policies and regulations for the respective land uses are formulated, and guidelines respecting the phasing and implementation programme identified. It must be recognized that, due to the lack of private sector investment in recent years in Elkwater and the current downturn in the economy, the plan is not able to predict future land uses with any degree of accuracy and, therefore, scheduling the provision of future infrastructure and commercial

services. Dramatic fluctuations in interest rates over recent years have reduced investor confidence in the economic viability of many leisure-oriented venture capital projects. Predictions on future townsite growth are further complicated by intervening opportunities planned and developed by both the private and public sectors in south-western Saskatchewan, northern Montana, southern British Columbia and in Alberta. Developments planned for the Cypress Hills in Saskatchewan may have a long term positive impact on establishing a tourism destination region, whereas developments (summer - winter oriented) beyond the Cypress Hills will draw markets away from Elkwater.

The Townsite Development Plan is, in effect, "planning under uncertainty", with the variables increasing as the time horizon expands. This plan, through commitment by Alberta Recreation and Parks and built-in flexibility in terms of phasing, attempts to reduce this uncertainty as much as possible. Some of these variables, namely investment by the private sector in fixed-roof accommodation, as well as increasing demand for tourist services can be accommodated in the plan through ongoing competent planning and proper administration of the document. Critical to the successful implementation of the plan, however, is the immediate strong support required by government agencies to provide an attractive environment for private investment to occur.

The plan is divided into the following sections:

PART I: "Introduction"

Provides information regarding the structure of the plan, and the basic intent and the need for a planning document to direct the redevelopment of the townsite and investment by both the private and public sectors.

PART II: "Present Situation"

Describes the current land use, and services in the townsite, the regional setting, summarizes the critical issues concerning the development of Elkwater and provides a discussion on the future significance of Elkwater as a regional tourism centre.

PART III: "Elkwater Development Strategy"

Outlines the goals and objectives of the plan, including a market analysis study which details future projections regarding the various land uses.

PART IV: "Development Plan Policies"

Outlines the major plan proposals and the proposed reallocation of land uses.

PART V: "Implementation Program"

Outlines the various steps in terms of phasing, priorities and public agency/private sector investment.

PART VI: "Land Use Regulations"

Describes the various general provisions and detailed land use policies associated with the ongoing administration and management of the community.

In order to develop a preferred concept plan, a range of scenarios were investigated that met, to varying degrees, several tourism and park planning assumptions and objectives. A number of assumptions were used in the preparation of the scenarios that related to: the level of capital commitment by the public and private sectors; type and scope of recreation programming; type and amount of permanent and seasonal

accommodation; location and scale of commercial development; land use pattern - impact and use of resources; and ability of the community to attract four-season use and a broad range of regional market segments.

The selected scenarios included many proposals that, when planned and developed over a number of years, would allow for orderly growth of the townsite into a regional tourism destination centre. The plan requires co-operation and investment by both the public and private sectors, although it is important to recognize that a strong leadership role will be initially required by various government departments.

1.6 Conformity with Legislation and Other Plans

The Elkwater Development Plan is intended to satisfy the conditions set forward for the townsite in the 1981 Master Plan for Cypress Hills Provincial Park. In the Master Plan it was recommended that a townsite plan be prepared to provide direction for future public and private sector initiatives regarding commercial development, camping, group camping accommodation, fixed-roof accommodation, utilities and services, administration and maintenance, and community facilities.

Other documents that have affected the development of planning proposals regarding community structure, vacation home uses, commercial uses, recreation and social facilities, servicing and implementation include:

- An Assessment of the Tourism Resources of Southeastern Alberta, December 1979, IBI Group;

- Cypress Hills Provincial Park Ski Facility Study, April 1981, Marshall Macklin Monaghan Western Limited;
- Cypress Hills Ski Area Master Plan Update, March 1986, Marshall Macklin Monaghan Western Limited;
- Elkwater Townsite Concept Development Plan - Public Input Summary Report, January 1986, T & D Hafso Enterprises;
- Elkwater Lake Shorefront and West End Campground Master Development Plan, November 1978, Greenline Associates;
- Elkwater Utility Study, March 1979, Delcan;
- Cypress Hills Provincial Park Master Plan Design Report, September 1971;
- Cypress Hills Provincial Park Master Plan Report, 1973, Lombard North - Marshall Macklin Monaghan Limited; and
- Master Planning Study, Briefs presented to Alberta Recreation, Parks and Wildlife, Provincial Parks Division, Public Hearings, 1976.

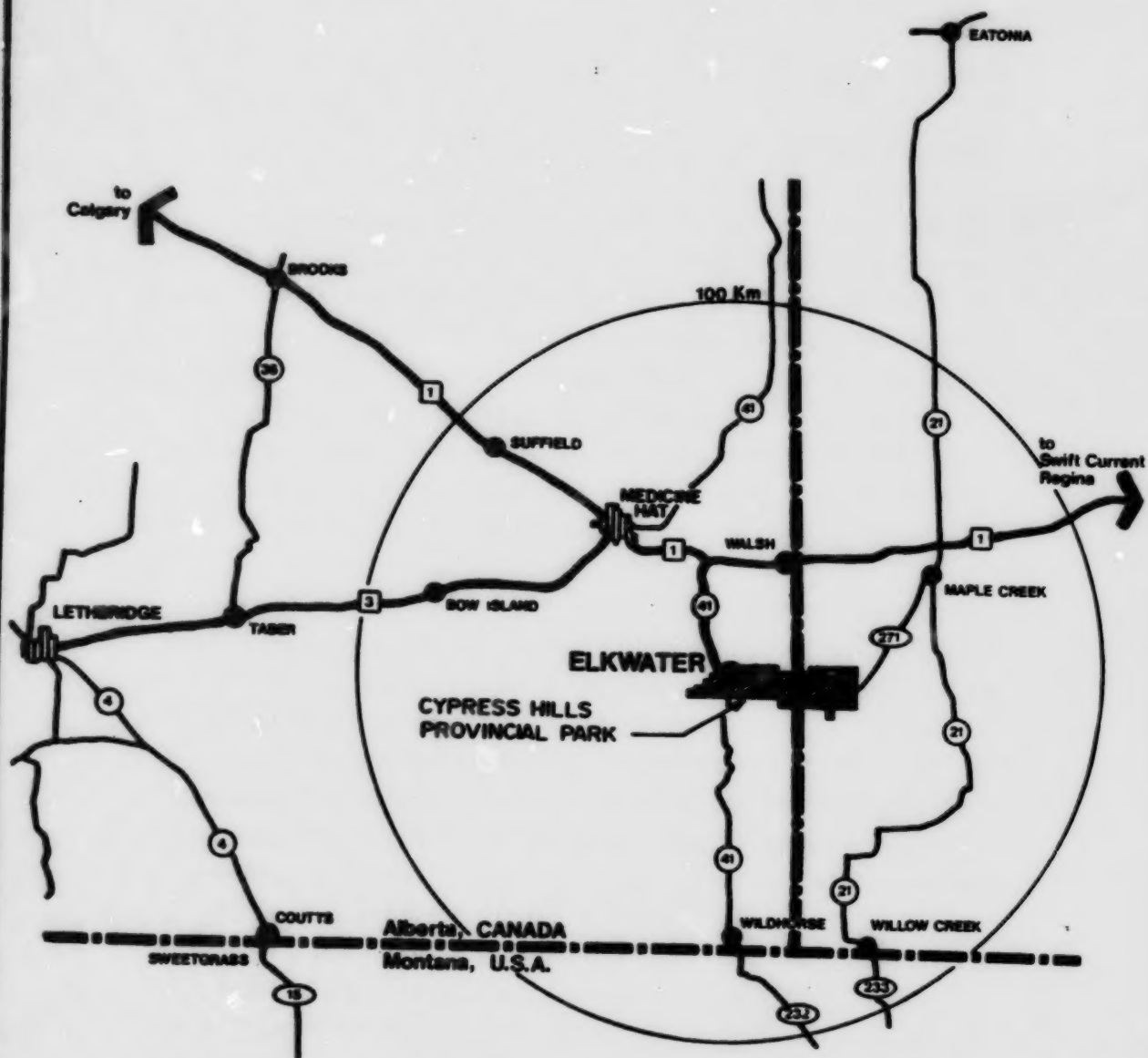
These documents assisted the Department in first, providing the direction and scale of future development and second, in understanding the background issues and previous decisions made regarding ongoing land use concerns as it affects the growth of tourism. Further, these documents allowed the study team to direct the future development of Elkwater in a manner which will provide for growth in a planned environment which is consistent with planning principles.

2.0 PRESENT SITUATION

2.1 Regional Setting

Cypress Hills Provincial Park is located in the south-east corner of Alberta, approximately 362 km from Calgary, 65 km from Medicine Hat and 230 km from Lethbridge. The Park forms a part of the Cypress Hills physiographic sub-region that extends well into the Province of Saskatchewan forming a distinct area with extensive and intensive recreation opportunities. These opportunities include land and water-based activities as well as some of the most interesting historical, interpretive and natural resources in the Canadian Prairies.

In contrast to most other areas in the province, the Cypress Hills region includes a wide diversity of tourism themes. From a tourism perspective, there are a number of potential generators to draw resident and non-resident visitors to the Hills including the strong historical resources such as pre-settlement sites, features and trails; N.W.M.P. posts; early ranches, settlements and communities; historical structures and buildings; and historic irrigation works. Communities in the region annually host a number of cultural events and attractions, and efforts are being made to expand and improve these events to have a greater economic impact on the local economies. In addition to the resources noted, two downhill ski facilities are located in the Hills, as well as attractive lakes for sport fishing and boating, extensive crown land for trail riding activities, golf courses and a natural landscape unique to much of Canada. These regional resources have the potential of attracting increasing numbers of visitors to the Cypress Hills and with this increase in tourism activity, it will become more and more important to provide a broad range of services in regional centres such as Elkwater.



REGIONAL SETTING **ELKWATER TOWNSITE**

Map 2

SCALE 1 cm = 16.3 km Approximately
 0 10 20 30 40 50
 km



In terms of Alberta's Gateway Tourism Zone, Cypress Hills is the largest of the three provincial parks and is the only park with commercial services and year round use. The park receives extended destination use by visitors from throughout Alberta (especially the Edmonton area, but the predominant use is from nearby Medicine Hat and other small communities).

In 1985, the total number of day users visiting the park was 161,540, an increase of over 20% over 1984. An impressive increase was also experienced in the total number of camping party nights (i.e. 33,716 recorded in 1983, an increase of 12.6% over 1982). Combined statistics for Elkwater campgrounds indicate an increase of 16.9% over 1984, with an average weekend occupancy rate over a five month period of 105%, as compared to 89% in 1984.

Future increased use may be anticipated from the pass-through family tourist, as well as from the package tour bus market segments from the Trans-Canada Highway. As well as participating in the traditional activities offered in Alberta provincial parks, visitors to Elkwater also have the opportunity of enjoying activities and using services more often associated with private resorts.

2.2 Historical Overview

The federal Forest Reserves and Parks Act of 1911 designated an 207 square km. area known as the "Elkwater Block" as a Dominion Forest in the Cypress Hills. The Elkwater Block later on formed the basis for Cypress Hills Provincial Park.

In 1913 a subdivision survey established 336 lots on the south shore of Elkwater Lake. However, little development in the subdivision occurred until the 1930's. In 1947, administration of the townsite was transferred to the Provincial Parks Board. A privately owned property immediately west of the surveyed subdivision was subdivided haphazardly, and included in the park in 1948.

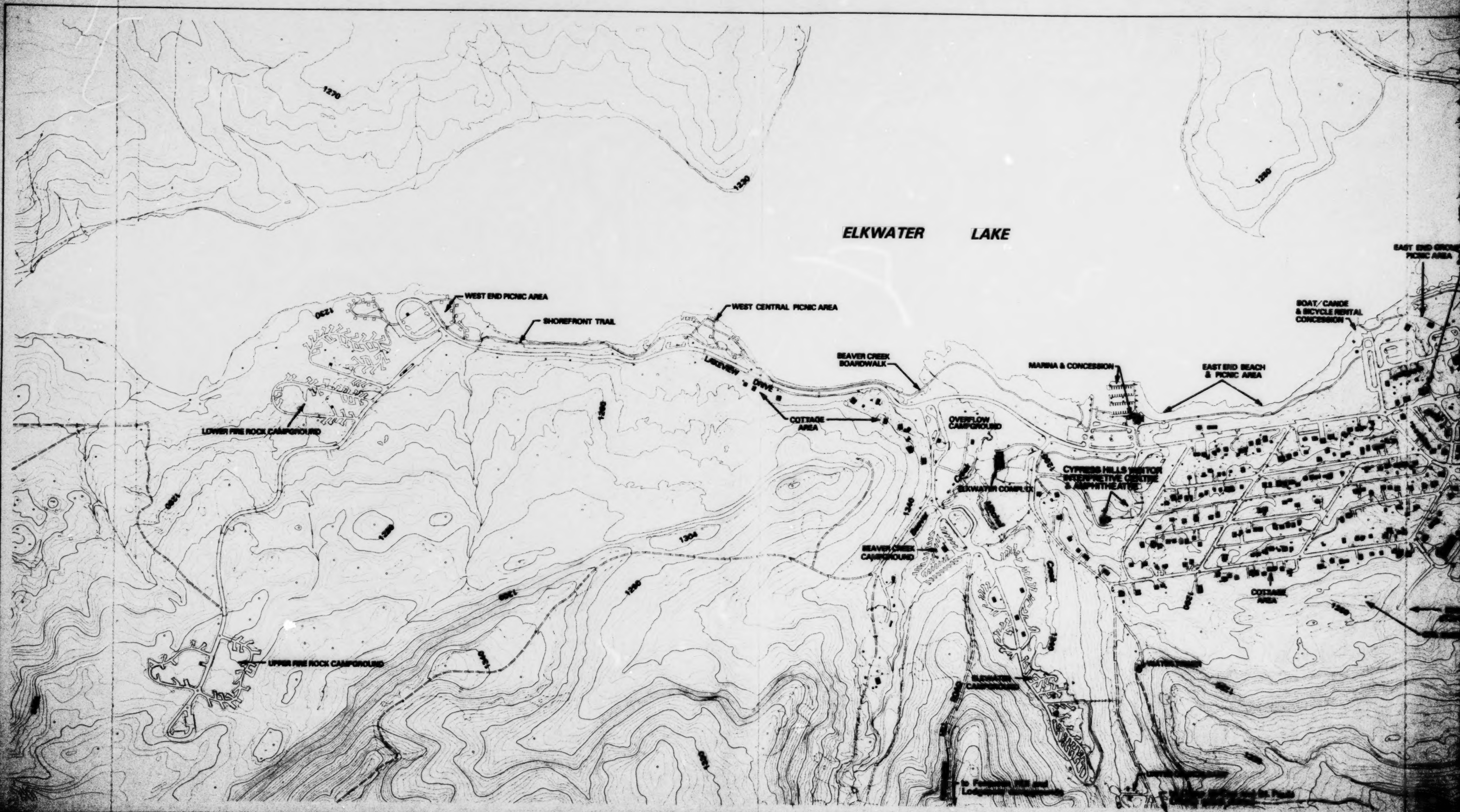
Since 1951, development of recreational facilities, municipal services, commercial operations, and other capital development occurred on an ongoing basis. Today, the Elkwater subdivision is comprised of 348 surveyed lots: 252 occupied by cottages, 21 occupied by other improvements such as a motel, gas station, commercial complex, and 75 lots surveyed but vacant. Other facilities, such as the group camps, the roping club, and the ski hill are located adjacent to the townsite, and form part of the overall townsite.

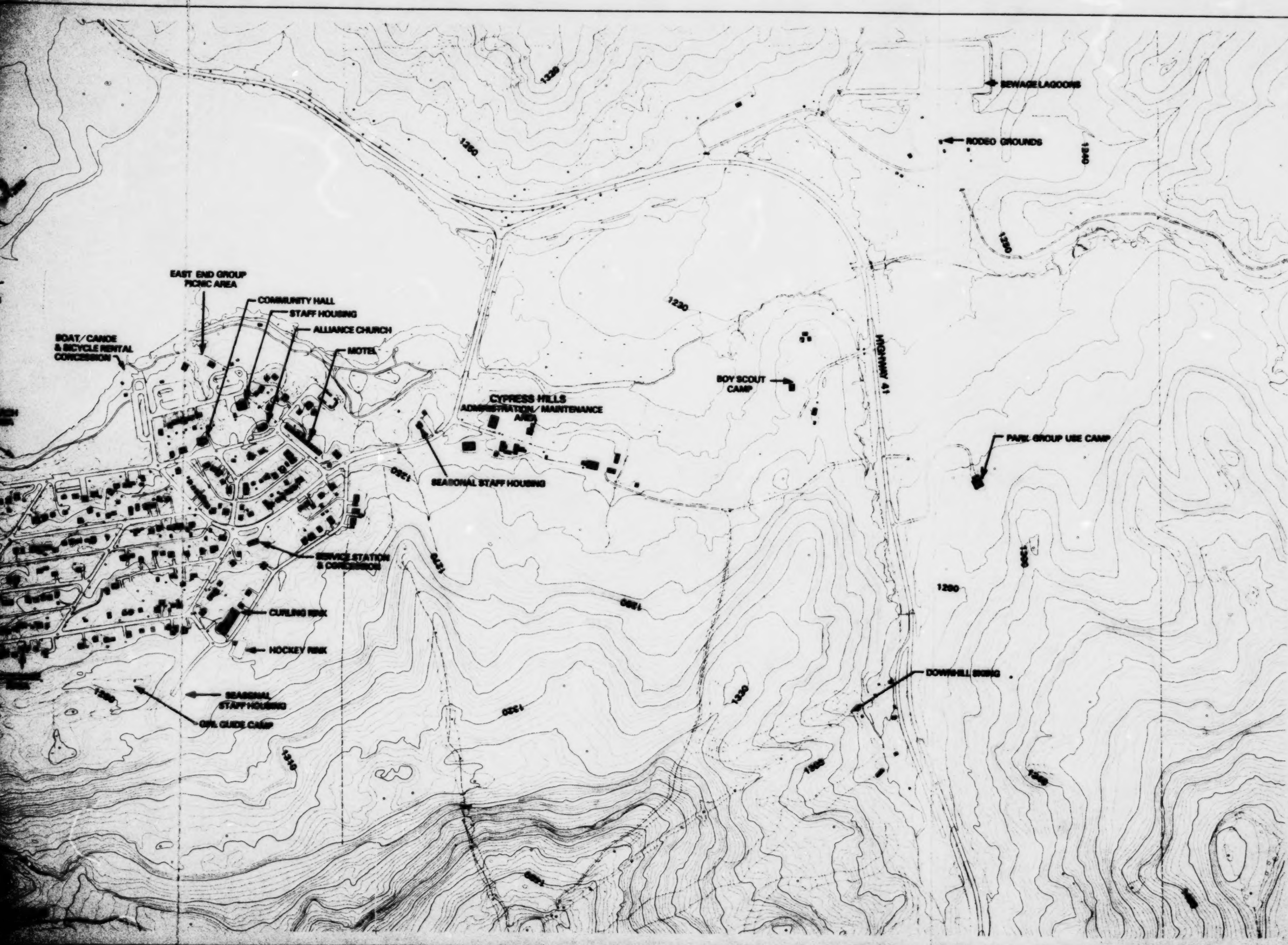
2.3 Existing Land Use

The existing land use, as shown on Map #3, identifies buildings and facilities in Elkwater. Based on the facilities the townsite is divided into six categories: residential, park administration and institutional, commercial, outdoor recreation open space, camping and vacant lands.

A brief review of the existing land use patterns indicates that Elkwater meets the primary purpose of Alberta Recreation and Parks in terms of providing traditional camping and summer land and water-based opportunities, but falls significantly short of







**EXISTING
LAND USE**

**ELKWATER TOWNSITE
DEVELOPMENT PLAN
IN
CYPRESS HILLS PROVINCIAL PARK**

SCALE: Approx 1 cm. = 75 m.
0 60 120 240
metres
Contour Interval 2 Metres

Map 3

what is required as a regional tourism destination centre.¹
In order to reach this objective, certain dramatic changes in land use are required with the provision of new facilities and services.

The existing land use pattern of Elkwater was, to a large extent, established with the residential surveys undertaken in 1913 and 1949. These surveys essentially defined the layout of the cottage community and circulation system and the existing potential linkages between various land uses.

Although the integrity of the cottage community has remained essentially intact, considerable development has occurred around the periphery of the cottage area to serve the general public. This includes Beaver Creek and Elkwater campgrounds to the west, the waterfront development zone extending the full length of the community along Elkwater Lake, administrative and maintenance services at the east end of the townsite, and the private group campground and seasonal staff quarters to the south. Some of the lots have been redeveloped for commercial purposes and campground development (Block 3) and permanent residential development for seasonal and permanent staff has been established at the east end of the townsite adjacent to Blocks 11 and 18 respectively.

¹A definition for a regional destination centre approved by Alberta Recreation and Parks for use in the Elkwater townsite planning study is as follows: "A distinct geographic area containing one or more tourism destination resorts integrated into a network of supporting facilities, attractions and events reflected through redevelopment and programmes of historic, recreation, or natural themes. The developments and programmes may be oriented to one or more major seasons and may attract a broad range of regional market segments, depending upon the quality of tourism amenities available."

The majority of development occurs in what might be described as the central core of the townsite, with a single entrance road to the area off Highway 41. A single access point to the community (excluding the ski area, rodeo grounds, and two group use camps) creates certain opportunities as well as constraints in meeting the needs of the travelling public and those parties residing in the community over an extended period. The variety of land uses at the town's entrance, however, does not establish a visually appealing entrance for the visitor.

2.3.1 The Residential Area

The residential area includes 236 seasonal cottages, 16 permanent residences and a seasonal staff accommodation trailer camp designed for approximately 60 staff.

The cottage community is one of the longest established developments in Elkwater and includes a great diversity in building types and investment. Although there has, to date, been little pressure for conversion of these private seasonal residences into permanent residences, this may be expected to change as a result of first, increased winter activity and facility development and second, the high investment occurring in many of the recently constructed residences.

The cottage community, until recently, was considered an inappropriate land use by the provincial government and plans were developed to acquire all cottages over a lengthy time horizon. A priority programme for the acquisition of cottages was developed and has been in place for several years. This programme has had a negative impact on certain sections of the community in terms of reducing investment in upgrading individual properties and the overall investment in commercial opportunities.

2.3.2 Park Administration and Institutional Areas

This land use category includes a number of essential land uses widely separated throughout the townsite. The future land use plan will require a relocation of certain of these uses to provide more efficient and functional land use. Some additional park administration facilities are seen to be required, and will be located in close proximity to the existing site (e.g., R.C.M.P. office and fire hall). These facilities should, wherever possible, be consolidated and removed from the view of the public.

2.3.3 Commercial Land Use

Commercial land uses include, for example, the Greentree Motel, gas station and concession, Elkwater Complex, and marina. These are considered acceptable and desirable land uses in the townsite.

However, the commercial land uses are situated at a number of locations throughout the townsite, thereby creating an inconvenience to both resident and visitor. The lack of a strong commercial core has affected both the provision of services to the visitor and the financial viability of the individual business. Commercial uses, and increasing vehicular traffic, in the residential area are considered inappropriate and cause a serious safety hazard to pedestrians. Improvements in this regard should be encouraged.

2.3.4 Outdoor Recreation

This category includes a wide range of uses. The intensive day use areas are located along the waterfront and include vehicular access and parking. Additional improvements by both the public and private sectors are needed to improve the quality of the

public environment in order to establish a strong visual image for the tourist as well as to establish a wider variety of destination leisure activities. A number of attractive buffer areas occur throughout the cottage subdivision that help retain the natural appearance of this area.

A strong pedestrian linkage system is important in the townsite due to the widely separated facilities in the community and to minimize vehicular traffic generated by extended stay visitors. In this regard, the continued development of cycling and pedestrian pathways between various facility nodes is seen as a means of enhancing the recreation experience while reducing traffic and parking problems.

Strong recreation generators are required during the shoulder and winter seasons to attract visitors and maintain the viability of private sector businesses. An expanded ski resort and riding centre are seen as facilities that have the potential to expand off-season visitation. A strong park orientation centre could be an important focal point to Elkwater to provide tourist information on the services, events and attractions occurring in and around the townsite.

2.3.5 Camping Areas and Group Camps

Public camping is consolidated into three locations, including six individual campgrounds. The campgrounds are for short term use (up to 16 days) and provide a range of services to accommodate various types of camper needs (e.g., electrical power, water and sewage dumping station).

The campgrounds vary dramatically in appearance and recreation experience from the high density campgrounds such as Elkwater and Beaver Creek to a lower density campground in a heavily wooded area such as Upper Fire Rock. With visitors increasing their length of stay at a particular location, it is becoming increasingly important to provide greater leisure attractions within or in close proximity to the campground and improve pedestrian systems within the campground and between other sections of the community. Additional attractions of a family nature may be important. Greater use may also be made of the lands immediately adjacent to Fire Rock and Beaver Creek Campgrounds for public camping.

Six group camps are located in Elkwater of which five are operated by private groups or agencies. The remaining camp is operated by Alberta Recreation and Parks which rents sites to groups on a first come basis. Three of the private group camps are severely limited in development area due to topographic constraints.

2.3.6 Vacant Lands

Much of the townsite is included within the category described as vacant lands. These lands contain natural resources such as wildlife, vegetation, soil and water that must be protected and managed for their functional, aesthetic, recreational, and ecological value. Future use of these lands should be undertaken only following a review of the potential environmental impact. Public as well as private development proposals should be evaluated to provide assurance that they are environmentally sound and that all reasonable steps will be taken to mitigate potentially adverse effects.

The vacant land category includes areas of natural diversity and beauty, primarily along the south side of the townsite, such as steep hillsides, mature forests, meadows, small water features and heritage resources. To maintain the strong natural character of the townsite it is, therefore, essential to protect to the greatest degree possible its natural qualities and scenic appeal while allowing for public use and enjoyment.

2.4 Utilities

2.4.1 Existing Facilities

The existing utilities include:

Water System

The water system presently is composed of:

1. A distribution system which includes:
 - a. 200 mm Ø asbestos cement or polyethylene pipe
 - b. 150 mm Ø asbestos cement or polyethylene pipe
 - c. 100 mm Ø asbestos cement or polyethylene pipe
 - d. 50 mm Ø polyethylene pipe
 - e. 25 mm Ø polyethylene pipe
 - f. 13 mm Ø polyethylene pipe
2. An 840 m³ steel water tower which was recently renovated. This renovation included:
 - a. repair of collapsed inner tank.

- b. installation of two 3.73 kw, 480 kPa, 3.8 l/s pumps and a 940 l pressure tank. The installation of these pumps is to provide adequate water pressure to the church camp line.
 - c. installation of a 22.4 kw, 450 kPa, 31.5 l/s fire pump to provide protection to the church camps.
- 3. Four production wells.
 - 4. Water treatment is provided by chlorinators and retention tanks at all wells, except for well No. 181 at the water tower. This well has a chlorinator only.
 - 5. Fire protection is provided by fire hydrants located throughout the townsite.

Sewer System

The existing centralized sewage system serves only the group camps and the public and commercial buildings. The cottages have either individual septic tanks and tile fields, holding tanks for pump out, or pit privies. The centralized sewage system is composed of:

- 1. A collection system which includes:
 - a. 375 mm Ø concrete pipe
 - b. 300 mm Ø concrete pipe
 - c. 250 mm Ø asbestos cement pipe
 - d. 200 mm Ø vitrified clay tile, asbestos cement or PVC pipe

2. Three lift stations:

- a. Lift Station No. 1, located by the causeway,
constructed in 1966 by Smith and Loveless contains:
 - i) wet well and dry well
 - ii) two 11.1 kw Smith and Loveless sewage pumps
 - iii) bubbler control system
 - iv) withdrawal in-line blower vent system
- b. Lift Station No. 2, located by the marina, constructed
in 1966 by Smith and Loveless contains:
 - i) wet well and dry well
 - ii) two 7.46 kw Smith and Loveless sewage pumps
 - iii) bubbler control system
 - iv) withdrawal in-line blower vent system
- c. Lift Station No. 3, located by the Catholic Church
camp, constructed in 1983 by Flygt Canada contains:
 - i) well and dry well
 - ii) two Flygt submersible sewage pumps
 - iii) mercury level control system
 - iv) injection fan with vent exhaust

3. Forcemains, which include:

- a. 200 mm Ø cast iron pipe from lift station No. 1 to the
lagoon with an air relief valve approximately 275 m
southwest of the lagoon.
- b. 200 mm Ø asbestos cement pipe from lift station No. 2
to MHS 37.
- c. 100 mm Ø PVC pipe from lift station No. 3 to MHS 68.

4. A 28,000 m³ lagoon which is located approximately 1,200 m northeast of the townsite.

Natural Gas

The natural gas system in the townsite is operated by Forty Mile Gas Co-op Ltd. The system includes:

1. 75 mm Ø aluminum mains
2. 50 mm Ø polyethylene mains
3. 20 mm Ø polyethylene services

Power

TransAlta Utilities supplies electricity to the Elkwater Townsite by means of overhead and underground transmission lines. The voltage available are:

1. 120-240 single phase throughout the townsite.
2. 120-208 three phase in certain areas of the townsite.
Three phase power serves lift stations #1 and #2.

Solid Waste

Solid waste is collected and disposed under contract with B.F.I. Ltd., who are a solid waste hauling firm. The contract is renewed yearly. All solid waste is hauled to the Medicine Hat disposal site.

2.4.2 Condition of Existing Facilities

Water System

The present water system adequately serves the Elkwater Townsite; however, the following points should be noted:

1. Cottagers along 7th Avenue and the seasonal staff housing development receive water pressures between 20 psi and 30 psi. These pressures are less than desirable; however, it is intended that the water pressures in the staff housing area will be increased by the installation of a local pump and pressure system.
2. The water pressures closest to the lake and in the area of the Elkwater Complex are as high as 90 psi. This pressure is much higher than desired and could result in damage to plumbing inside buildings.
3. Some of the watermains are terminated as dead ends rather than the more desirable loop arrangements.
4. Waterlines in the proposed new hotel area in the northeast portion of the community are too small to serve this proposed development.
5. Water wells appear to be providing adequate water quality for present use, but new wells may be required to satisfy future demands. Water quality appears to be satisfactory.
6. The water storage tower provides 840 m^3 of water storage. This is adequate for present demand but should be increased for future needs.

7. A fire pump with a capacity of 31 l/s (500 gpm) and 450 kPa (65 psi) has recently been installed at the water tower. However, this pump only serves the church camp and not the remainder of the townsite. Water for fire protection is provided by the water tower and the static head. As a result, the required quantity of water would likely be available for fire protection but the desired pressure would not be.
8. Mitchell Spring was at one time a water source for Elkwater. This source has now been terminated and is being used only for the Ferguson Hill and Lodgepole Campground.
9. According to the park's operation personnel, there does not appear to be any problem in the water system with leakage or freezing. All mains are 2.4 to 5.0 m (7.9-16.4 ft.) deep and all service connections are at least 2.0 m (6.6 ft.) deep.
10. The water distribution system is 25-35 years old, which is well below its expected service life of at least 60 years.

Sewage System

The present sewer system appears to be providing adequate service to Elkwater; however, the following conditions of the existing sewage system should be noted:

1. All sewer piping appears to be in good condition with no leaks or freeze-up problems.

2. Although the sewer system is 20 years old, it is well below its expected service life of 60 years.
3. There is no sewer in the area of the proposed new permanent and rental housing developments.
4. The controls and venting in the two oldest wet well/dry well lift stations should be upgraded to meet Alberta Environment Standards.
5. The sewage lagoon is undersized. There also appears to be a problem of dumping pump-out truck contents into the lagoon. At the present time, the pump-out truck is disposing its contents by placing the discharge hose over the bank of the lagoon which creates an erosion problem.
6. With regards to the method of sewage collection and treatment at the cottages, based on present Alberta Labour's Provincial Plumbing Inspection Standards, the lot sizes are too small for conventional septic tank and tile fields according to a study undertaken in 1977 by Alberta Recreation, Parks and Wildlife. Since that time, any new systems installed have been required to incorporate a holding tank with a pump-out. To date no adverse impact from the use of septic tanks and tile fields has been detected on lake quality. However it would appear, based on the general subject literature, that continual use of septic tanks and tile fields over a long period of time (eg. 15 years) on lots of this size will eventually have a detrimental effect on the lake's quality.

Natural Gas and Electricity

The existing natural gas and electrical utilities service to the townsite of Elkwater are adequate. The natural gas and power system are owned and operated by franchise utility companies - Forty Mile Gas Co-op, and TransAlta Utilities Co., respectively.

Both systems are undergoing expansion and upgrading on a continual basis. Forty Mile Gas Co-op recently completed the installation of a 75 mm Ø aluminum gas main to the west end of the townsite, while TransAlta is expanding its townsite distribution system to accommodate new cottage reconstruction.

Solid Waste

The present solid waste disposal system is providing adequate service.

Existing and Design Flows

In establishing existing and design flows, no metred information was available. Therefore, values used in the Elkwater Utility Study 1979 were reviewed and modified based on the latest literature from the Cold Climate Utility Design Manual - EPS revision 1982, "Parks Planning Guidelines" - Fogg 1979 and "Estimates of Commercial, Industrial and Recreational Wastewater Flows" - Minnesota Pollution Control Agency 1982.

Existing sanitary flows, as detailed in Table 1, are estimated to be 131,430 m³/year. Existing water requirements are estimated to be 124,130 m³/year, excluding water requirements for irrigation purposes. This amount is less than the sewage

production because two campgrounds are supplied with water from Mitchell Spring. Also in calculating water demand, it is assumed that 10% of the water used does not enter the sewage system.

Future sewage production, as outlined in Table 2, is estimated at $254,320 \text{ m}^3/\text{year}$. Future maximum day flow will occur in the summer and is estimated to be $1,110 \text{ m}^3/\text{day}$. Using a peak day factor of 2.5 and a peak hour factor of 4.5, the peak day will be $2,775 \text{ m}^3/\text{day}$ and the peak hour will be $208.1 \text{ m}^3/\text{hour}$ (58 l/s).

The future water demand is estimated to be $234,500 \text{ m}^3/\text{year}$, excluding water requirements for irrigation purposes. Again, this quantity is less than the sewage flows because two of the campgrounds, the Elkwater Roping Club, the Fire Rock day use area, and the ski hill do not obtain water from the townsite's system.

The maximum daily demand for water will occur in the summer at an estimated demand of $897.2 \text{ m}^3/\text{day}$. Based on the peak factors of 2.5 for peak day and 4.5 for peak hour, the peak day would be $2,245 \text{ m}^3/\text{day}$ and the peak hour would be $168 \text{ m}^3/\text{hour}$ (47 l/s).

Existing solid waste mass is estimated to peak at 6,000 kg/week; this translates to a volume of $63 \text{ m}^3/\text{week}$. Future solid waste mass is expected to peak at 13,000 kg/week, or a volume of $137 \text{ m}^3/\text{week}$.

2.5 Population

The population of Elkwater varies dramatically from season to season and throughout the week during the high summer recreation season. According to recent statistics, there are 14 permanent park and other provincial government staff residing in the community and 45 to 50 seasonal employees.

TABLE 1

EXISTING SANITARY WASTEWATER FLOWS

(Reference: Elkwater Utilities Study, 1979, DeLCan)

	Flow (m^3/day)	Annual Utilization	Average Day Use on Annual Basis (m^3/day)
Commercial (motel, Elkwater Complex, garage)	34.0	Full Year	34
Service (Parks Office, maintenance building)	56.0	Full Year	56
Cottages	310.0	50%	155.0
Catholic Church Camp	13.0	20%	2.6
Lutheran Church Camp	3.0	20%	.6
United Church Camp	21.0	20%	4.2
Girl Guide Camp	10.0	20%	2.0
Day Use Area	32.0	40%	12.8
Campgrounds	50.0	40%	20.0
Other Facilities	<u>40.0</u>	<u>100%</u>	<u>40.0</u>
			327.2 m^3/day or 119,430 m^3/year
Infiltration (assume 10%)		plus 10% infiltration	<u>12,000</u>
	TOTAL		131,430 m^3/year

TABLE 2
SANITARY WASTEWATER FLOWS
FOR PROPOSED DEVELOPMENT¹

	Flow (m ³ /day)	Utilization	Average Day Use on Annual Basis (m ³ /day)
Commercial			
Resort Motel Accommodation	90.0	70%	63.0
General Commercial Development	27.0	85%	23.0
Medium Density Rental Accommodation	60.0	100%	60.0
Elkwater Beach - Waterfront	40.0	20%	8.0
Condominium Rental Accommodation	68.0	100%	68.0
Alberta Recreation and Parks			
Permanent Staff Housing	72.5	100%	72.5
Elkwater Community Association	54.5	20%	10.9
Administration and Maintenance Yards	59.0	100%	59.0
Seasonal Staff Housing	18.0	33%	6.0
Campgrounds	84.0	40%	33.6
Day Use Areas	80.0	20%	16.0
Cottagers			
Cottages	228.2	50%	114.1
Group Camps			
Group Camps	139.5	20%	27.9
Ski Hill	60.0	20%	12.0
General Commercial			
Elkwater Complex	52.0	100%	52.0
Elkwater Riding Centre	2.7	20%	0.54
Elkwater Recreation Centre	34.0	20%	6.8
TOTAL			633.44 m ³ /day
+ 10% for infiltration			696.7 m ³ /day
			= 254,320 m ³ /year

¹Excluding swimming pool

Analysis of the projected population during the summer period reveals that the townsite has a considerable temporary population equivalent to or greater than many Alberta communities and will have an increasing requirement for a range of urban services. During the peak summer period, it is estimated that between 3,500 and 4,000 visitors are in the townsite at one time. Approximately 45% of this use will be by campers, followed by cottagers (23%), day users including group use (19%), group camps (8%), with the remaining 5% divided between motel patrons and staff. During poorer weather periods in the summer, this population may drop to 1,800 to 2,000 and in the winter to 100-200 staff and visitors.

According to the Municipal District of Cypress, the townsite provides important recreation services to the surrounding region with provincial grant funds being spent on facilities such as the curling club. In 1981, the population of the recreation sub-district that includes Elkwater had a population of 507.

2.6 Issues

The Townsite of Elkwater has over several decades of use seen a number of changes in terms of government policies regarding recreational activities, investment by the private sector in facility and cottage development, and capital development by Alberta Recreation and Parks. The park, and more specifically the townsite, has become increasingly important as a tourist centre for southeast Alberta.¹ This study prepares a development plan for the townsite that will specify its future role in the park, identify development and maintenance standards for all facilities in Elkwater, and outline requirements for utilities, services, commercial operations, and commercial facilities.

¹Planning Branch. 1981. "Cypress Hills Provincial Park Master Plan". Alberta Recreation and Parks, Parks Division, p. 1.

In order for a viable and feasible development plan to be developed for the Elkwater Townsite it is imperative that several interconnected, long standing issues be resolved. Both the identification and confirmation of issues has taken place through the ongoing involvement of the Cypress Hills Provincial Park Advisory Committee,¹ and feedback from the general public.

The issues outlined in Appendix F are as a result of differences in the directions proposed by the 1981 Cypress Hills Provincial Park Master Plan, and recommendations contained in this plan. Based on a review and evaluation of the issues and directions outlined, the Department of Recreation and Parks will establish the future directions for the Elkwater Townsite.

¹Citizens from the Medicine Hat area represent the Cypress Hills Provincial Park Advisory Committee. This Committee has been appointed by the Minister of Recreation and Parks to make recommendations on the development, management, and operation of Cypress Hills Provincial Park.

3.0 ELKWATER DEVELOPMENT STRATEGY

3.1 Plan Purpose

The Plan is intended to guide land development within Elkwater and to reduce uncertainty within both the public and private sectors as to future tourism development opportunities by establishing a land use pattern and development principles as well as regulations to be followed. Elkwater is experiencing the increasing demand occurring in southern Alberta for summer and winter "out-of-doors" recreation attractions. Public interest in the development of leisure facilities is now placing greater demands on Alberta Recreation and Parks for the expansion of various forms and types of public and privately owned accommodation in the townsite and, in some instances, may necessitate the expansion of the water and sewer system and require improvements to the road network.

In promoting the orderly and economic growth of the townsite, the plan is geared to:

1. securing an optimum balance of land uses, but with emphasis on strengthening the commercial area as a major activity centre in the townsite;
2. developing a pleasing and attractive image for the residential, commercial and waterfront districts;
3. promoting the image and character of Elkwater as a regional tourist resort community by protecting views, natural features and access to the natural amenities of the park;

4. ensuring that the townsite provides comfortable community living and related services for those individuals and families with a need to reside in the park;
5. ensuring that accommodation requirements, to meet the various needs of visitors, are addressed;
6. promoting development of year round economic activity that will provide for a range of commercial and public recreational facilities in order to attract a range of market segments on a four-season basis;
7. creating a pleasant and safe pedestrian, cycle and vehicular circulation system throughout the townsite;
8. encouraging joint planning and co-operation between Alberta Recreation and Parks, the Municipal District of Cypress, and the Saskatchewan Government; and
9. ensuring that the purpose for which the townsite is being developed is achieved and is in general agreement with the Cypress Hills Master Plan.

3.2 Plan Objectives

Projections, development strategies and guidelines contained in this plan attempt to reconcile existing conditions with the ability of Alberta Recreation and Parks, the Municipal District and other agencies to provide appropriate services and attractions.

Further, the plan is cognizant of local aspirations, as well as variables such as local and regional changes in summer and winter recreation use demands, increases in tourist traffic

along the Trans-Canada Highway (mass-mode and automobile), development in the Saskatchewan area of the Cypress Hills, as well as the growth and marketing of other intervening opportunities.

One other objective of the plan is to define the means of implementing the plans and policies contained and relate these to Alberta Recreation and Parks and associated government responsibilities. In this sense, the plan is to guide Alberta Recreation and Parks, the Municipal District and any future cottage association in the exercise of their powers and responsibilities related to such matters as land assembly and redevelopment, land use designation, recreation facility development, municipal services and plan review.

In the development of the townsite and the management and protection of Elkwater and surrounding lands, a number of goals were identified. The following goals were used as the basis for development of the plan and recommendations contained in this report:

1. The townsite will remain a viable community for not less than the next 40 years, and will have facilities and services compatible with a regional tourist destination area.
2. The townsite will be administered by the Department of Recreation and Parks.
3. Year-round facilities will be provided, with full utility services.

4. Major sections of the study area are to remain undeveloped throughout the twenty (20) year planning horizon of the plan.
5. Future recreation facilities, events and attractions should be established according to projected leisure trends for the region, be compatible with the purpose of Cypress Hills Provincial Park, and satisfy the needs of Elkwater as a regional tourism destination centre.
6. Provisions should be made for the protection and enhancement of the unique and scenic recreational and historical qualities in the Elkwater townsite area.
7. The plan shall provide for the maintenance and enhancement of the townsite's tourism potential, market awareness and economic viability, consistent with efforts to protect the recognized values of Cypress Hills Provincial Park.
8. Provide encouragement, to the maximum extent possible, to private sector participation in the planning, development, operation and investment of future commercial attractions and tourism services. Ensure a strong aesthetic unity is established between public and private sector environments.
9. Accommodation (tent and trailer/fixed-roof) shall be permitted in specific areas according to market conditions; future subdivision boundary expansion of the seasonal cottage district shall be discouraged, although some medium and low density development will be permitted in vacant lots and adjacent reserves within the townsite boundary.

10. Reserve lands, suitable for development, although not presently required, shall be identified and protected for potential future use.
11. Land use relationships within the townsite will facilitate easier pedestrian access and use within the community.
12. Provide for the full use and enjoyment of Elkwater and the Cypress Hills by seasonal visitors on a year-round basis, ensure the maintenance of a quality recreational experience, protect private property rights and alleviate user conflicts.
- .13 Encourage the establishment of a large number of events throughout the year to encourage the continued growth of Elkwater as a tourism generator.
- .14 Encourage the establishment of restaurants, overnight facilities and other commercial attractions to increase the desirability of the Elkwater townsite to tourists as an extended vacation destination site and to promote higher tourist expenditures on a per-trip basis.
- .15 Lands with environmental hazards and/or physical limitations such as poor drainage, flood susceptibility, erosion and steep slopes shall be protected, in order to preserve and conserve the natural environment.
- .16 Development shall proceed in an orderly, phased manner and will not be permitted in areas which will result in major irreversible and irretrievable commitment of resources detrimental to the park or townsite.

Review

The proposals and policies established within this plan have been developed to provide a certain degree of flexibility in order to accommodate any minor unforeseen development. The plan should be reviewed at regular five (5) year intervals to identify and provide for changing permanent and seasonal accommodation requirements, as well as other commercial and public sector recreation facility and service needs of future users of the townsite.

The plan is expected to serve as a satisfactory guide to the townsite until the year 2006, at which time a major re-evaluation of the basic principles and policies shall be undertaken to reflect changing recreation - tourism conditions in the Cypress Hills.

3.4 Market Analysis

From a market perspective, the planning for Elkwater townsite has been directed by several leisure, economic and social trends affecting the primary market segments, including the specialty tourism markets, the second-home investment market, the traditional camper market, motor coach tour market, and the local day use market. The basic development philosophy behind the townsite plan is to blend the positive elements of these distinct market groups. This approach will ensure more effective utilization of the townsite's services and recreation amenities, as well as increase its overall economic viability and attractiveness through the creation of a sufficient critical population required for a four-season tourism destination centre.

A. Specialty Tourism Markets

A number of recent tourism future and related leisure research studies for Alberta and Saskatchewan have been examined and clearly indicate a consistent growth in certain specialty markets. Visitors to the Cypress Hills have shown, for example, a preference for active leisure opportunities such as swimming, golfing, hiking, cross-country and downhill skiing. New facilities proposed in this plan will be directed at these specialty markets, as well as other secondary activities such as trail riding, cycling and canoeing. Table 3 illustrates the growth in particular activities relevant in the planning and development of Elkwater. The ten most popular activities in the province are considered to be: walking, bicycling, swimming (pool), jogging/running, gardening, home exercises, ice skating, cross-country skiing, tennis and golf. Although the provincial population is ageing, the demand for these activities will remain strong.

A review of use levels at the ski resort indicates that, over the past ten years, the average number of downhill skier days have been increasing substantially. Market research undertaken for the proposed expansion of the ski area indicates that in Year 1 (prior to completion of facilities), the total number of skier days would be approximately 5,850, with an average skiers per day of 130. The expected market projections in Year 10 (Phase I only) is estimated to increase to almost 44,849 skier days. An optimistic projection at Year 10 (Phases I and II) would be for over 64,000 annual skier days and an average peak day of over 1,300. The primary markets include a geographic area which extends approximately 120 km from the Cypress Hills in Alberta and up to 180 km in Saskatchewan.

TABLE 3

GROWTH IN SOME POPULAR SPORTS, 1976 1981 (age 14+ Canada)

	1976	1981	% Increase
Total Population (000's)	17,452	19,199	10
'000's Participants*			
Cross-Country Skiing	1,336	3,239	142
Downhill Skiing	1,199	2,023	69
Golf	1,911	2,524	32
Tennis	2,175	2,680	23
Ice Skating	2,930	3,473	19
Swimming	5,558	6,494	17
Curling	826	954	15

Source: Fitness Canada, Canadian Fitness Survey, May, 1983.

* Reported participating at least once in the 12 months preceding the survey.

Significant growth has occurred since 1980 in the use of the Elkwater Golf and Country Club. From 1980 to 1983, the number of non-members has grown from 2,900 to 4,450, an increase of 53%. Much of this increase was from non-residents and other visitors vacationing at Elkwater. In contrast, membership at the golf club from the immediate area has remained relatively constant at approximately 220 - 230. Although located outside both the townsite and the park, the golf course is an important and integral part of the recreation experience and is an attraction for tourists planning to vacation in Elkwater. The golf course, if appropriately developed and maintained, will continue to be a strong attraction for families on extended vacations.

The traditional family touring market is rapidly giving way to the destination-oriented tourism centres which offer specialized services and facilities and which cater to the specific needs and expectations of the visitor. Tourists have become more and more concerned with value for their leisure money and time.

B. Seasonal Cottage Investment Market

Few opportunities in recent years have been available to the public in southern Alberta to invest in seasonal cottages in resort areas. As a result there is little indication of the size of this market and the level of investment potential. Further, the policy of the provincial government of restricting cottage development in Elkwater has resulted in investment being deflected primarily to the American sunbelt resort communities. Based on discussions with real estate officials from the Medicine Hat area, as well as the demand for cottage lots in other private development (Siksika resort, crown land cottage development in Saskatchewan), it is apparent that there is a strong demand for second homes in Elkwater.

A number of cottage subdivisions have been approved along Lake Diefenbaker, Saskatchewan and in each case, they have been rapidly developed. Similarly, Jackfish and Murray Lakes, located east of Lloydminster, have several hundred cottages, of which a significant proportion are owned by Alberta residents. The origins of owners of cottages in Cypress Hills Provincial Park, Saskatchewan is not known; however, provincial officials have indicated that there is a high demand for any available property brought to market.

Based on this general review, it has been concluded that there is probably a significantly large regional seasonal cottage market, although additional marketing research in this area may be warranted by land developers.

C. Traditional Camper Market

Over the past three years (1983-1985), the number of camping party nights in the Cypress Hills has risen from 30,019 to 33,716, an increase of 12.3%. Statistics reveal that the number of camping party nights in the campgrounds within the Elkwater study boundary has risen from 25,808 in 1983 to 29,444 in 1985 (+14.1%). Additional growth may be expected during the shoulder seasons, however such growth is expected to be influenced, to a strong degree, by weather conditions, provincially as well as locally, and specific events and attractions held during this period.

A review of the six campgrounds in Cypress Hills Provincial Park, Saskatchewan indicates that they have had an occupancy rating (1982) between 66% and 94%, and that during the period 1978 to 1982 recorded a 34.9% increase in vehicles entering the park. The Cypress Hills (Saskatchewan and Alberta) are considered an important destination for the Saskatchewan resident market.

D. Motorcoach Tour Market

An important recent trend that could have a significant impact on the commercial viability of hotel and restaurant operations is the growth in in-province as well as inter-provincial tour bus traffic. In 1983, over 500 tour buses travelled along the Trans-Canada Highway past Elkwater. Discussions with tour booking agents indicated that there is a strong interest in including new points on their tours in the prairie region. Interpretive attractions, golf courses, sightseeing, food and beverage services and overnight accommodation were identified as important features in attracting this tour bus traffic. Because many of the tour companies cater to retired people, the season extends beyond the normal holiday period into the spring and fall shoulder seasons.

Within the province, there has been increasing tour bus traffic for specialty activities such as golfing and historical tours. Tour companies out of Edmonton (Wiebe Tours Ltd.) have been using Elkwater as a stop on their southern routes, but have commented on the lack of services that presently limits the length of stay in the townsite.

E. Day Use Market

Quantitative data regarding the number of day users is limited for the townsite. However, published data suggests that there has been a significant increase in day use over the past six years (192% increase) with the party size remaining stable (Table 4). A substantial increase in use has been occurring during all summer months, but has been most dramatic during May and September. During peak periods, it is suggested that the townsite is over capacity for day use based on the existing supply of parking.

The growth in day use has paralleled the population growth in Medicine Hat and, to a lesser extent, M.D. #1. During the period from 1971 to 1981, the urban population grew from 26,518 to 44,258 (66.9%). Some of this use may also be attributed to an increase in pass-through leisure traffic on the Trans-Canada Highway.

In summary, it is difficult to forecast future visitation to the townsite due to a number of important variables, including weather conditions, regional marketing, marketing of tour wholesalers, intervening opportunities, continued growth of facilities, services in the Cypress Hills (Alberta and Saskatchewan) and tourist events and attractions held in the townsite and immediate surrounding area. However, based on past trends, certain estimates have been developed based upon the assumption that the plan is implemented.

1. The number of annual camping party nights will continue to grow at a rate of 4 to 8%, with occupancy levels increasing during the months of May, June, August and September.
2. Day use traffic to the townsite will continue to grow at a relatively slow rate, according to population growth in the region and increases in pass through traffic along the Trans-Canada Highway. A limiting factor to this growth will be the townsite's parking capacity. A dramatic increase in tour bus visitors could be anticipated but will depend upon marketing promotions and the expansion and quality of food and accommodation services.
3. Group day use will dramatically increase, and it is anticipated that after Year 2 of development such facilities will be occupied at or near 100% occupancy.

TABLE 4

ELKWATER DAY USE STATISTICS

Year	Weekday	Weekend	Total	Average Day Use Party Size
1980	33,557	21,600	55,157	3.32
1981	61,751	34,046	95,797	3.85
1982	63,699	35,237	98,936	2.54
1983	89,107	58,714	147,821	2.85
1984	79,920	53,489	133,409	3.17
1985	100,971	60,569	161,540	3.35

4. A 300 - 400% increase in the average number of downhill skiers per day under "expected conditions" may be anticipated with implementation of the proposed Ski Hill Master Plan. The number of cross-country skiers will be expected to increase significantly with the expansion of fixed-roof accommodation, but such numbers will be dependent upon snow conditions and the development and grooming of trails.
5. Weekend use of cottages is anticipated to increase during the winter months following the expansion of downhill ski facilities. Occupancy projections of commercial fixed-roof accommodation will be subject to the results of detailed marketing investigations undertaken by the developer for future commercial hotel-motel development.
6. Limited townsite capacity and developable land will be a constraining factor affecting any continued long term growth for Elkwater.

4. DEVELOPMENT PLAN POLICIES

4.1 Introduction

Map #4 (located at the back of the plan) illustrates the development plan for the Elkwater townsite. Activities and developments are proposed to encourage greater four-season use of the townsite, and the park in general, and are located in areas that will have minimal natural and social impact on the park environment.

To date, only a few commercial establishments serve the park visitors and, to a limited extent, the surrounding ranches. Further, the population of Elkwater is currently too small on a year-round basis to support commercial tourist requirements and public services, so regional residents and pass-through vacationers on the Trans-Canada must travel to other recreational areas and communities for shopping and extended recreation and relaxation activities.

As noted previously, the proposed plan is based on the development of an expanded regional ski resort to attract winter use of the townsite, as well as improved summer recreation facilities to increase use during the shoulder seasons. The establishment of new events and improvements to certain existing annual events, hosted within or in close proximity to the townsite, will be important from the perspective of the commercial operators. Through increased investment by both the public and private sectors, it is anticipated that the Elkwater townsite plan will be a model of efficient land use, with a well-designed image, aesthetic quality and recreational attractions, serving as both the administrative headquarters and gateway for visitors to Cypress Hills Provincial Park.

The mixture of accommodation types will make the townsite an attractive tourist destination and use of the park throughout the year a feasible option. Consistent with the establishment of a larger and more stable resident population, on a year-round basis, new commercial services and business opportunities will be created, and visitors throughout the year will be able to enjoy the amenities of a diverse and self-sufficient regional tourism destination centre.

The following describes the plan proposals in adequate detail to determine their scale and probable implications on the adjacent land uses and recreation activities.

4.2 Public Campgrounds

The existing campgrounds, with the exception of Upper and Lower Fire Rock, have been established for a number of years and provide much of the visitor accommodation base (347 campsites). Although demand for camping opportunities remains high, with an overflow situation occurring during the high summer period (46 days in 1985), there is little land area available within the townsite to meet either existing or future use requirements.

The demand for camping opportunities is expected to continue to increase on a gradual basis in the next several years, both during the peak periods as well as the shoulder seasons. This demand is based on both past trends for Elkwater as well as the increasing market awareness of Elkwater and the Cypress Hills to travellers along the Trans-Canada. It is recognized that in certain provincial parks in Saskatchewan and Alberta, camping occupancy rates have decreased where there have been minimal

commercial attractions¹, although the opposite trend has been recorded where there is a greater variety of activities to encourage extended stay. Campgrounds located in Elkwater have witnessed a steady increase in demand, with a 14% increase in camping party nights between 1984 and 1985 (even though the number of campsites decreased from 374 to 347).

The following proposals generally are planned, first, to increase the total number of campsites in the townsite through the allocation of additional lands for camping purposes, second, to decrease the environmental impact being caused by over use and, third, to improve the quality of the camping experience.

A. Upper Fire Rock Campground Expansion

Analysis

At the west end of the townsite study area, a 6.0 (14.8 acres) to 7.4 ha (18.3 acres) site was found to be suitable for the development of an auto access campground. The campground has been designed to utilize the existing undulating land form and relatively dense aspen-spruce vegetation. The proposed development is located at the base of the high ridge and adjacent to a small shallow pond. Previous investigations have rated the area as being moderately suitable for campground development.

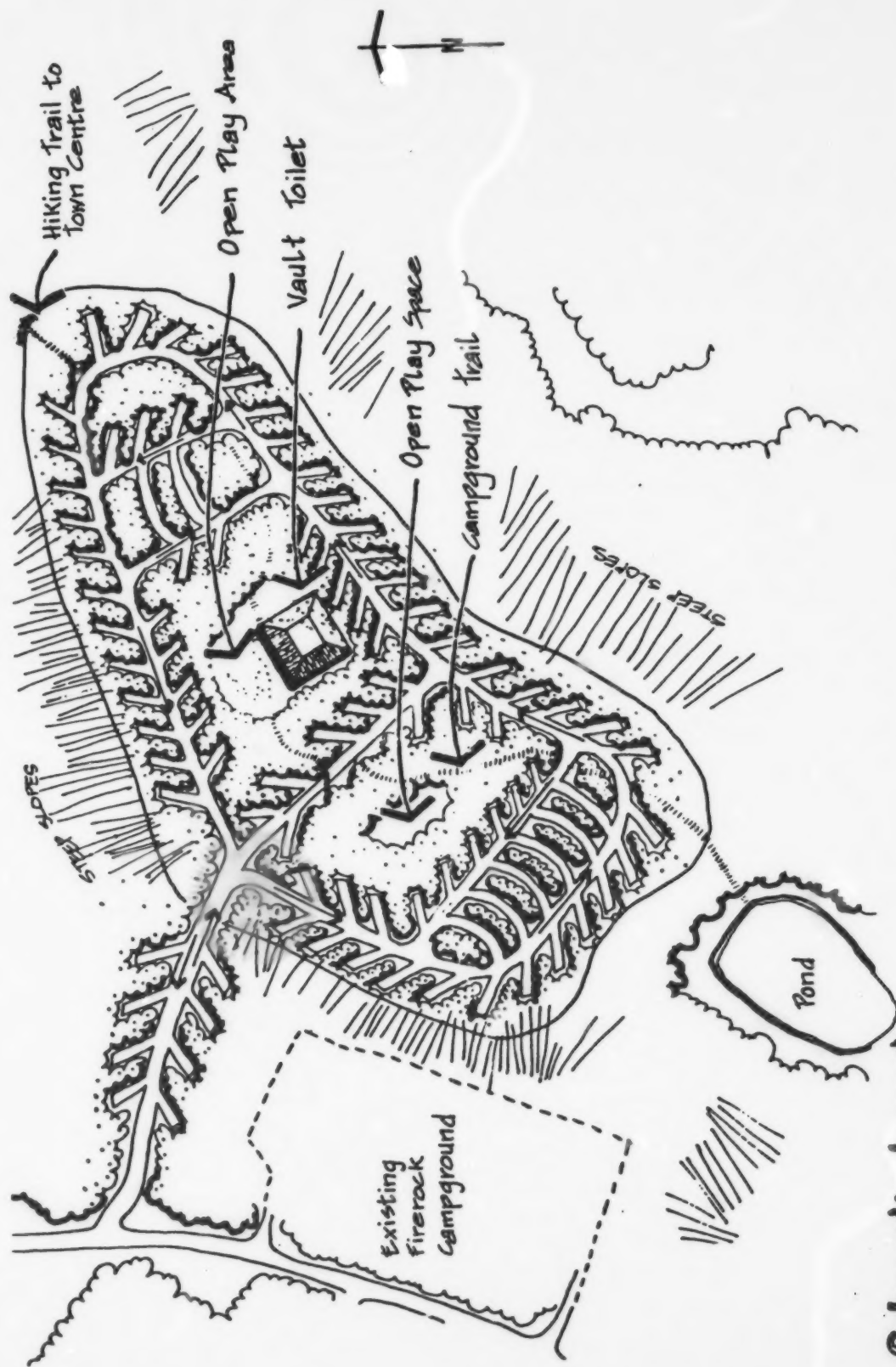
¹Saskatchewan Provincial Park campground visitation decreased at Echo Valley, Meadow Lake, Moose Mountain, Nipawin and Saskatchewan Landing. Notable decreases in permits sold at Provincial Parks in Alberta have occurred at Big Knife, Saskatoon Island, Little Bow and Crimson Lake (up to 1983).

It is proposed that this campground be designed as an integral part of the existing Upper Fire Rock development. However, in order not to impact on the camping experience, a separate entrance road would be established. It is anticipated that the campground would be popular with those campers especially interested in extensive land-based activities such as hiking, who enjoy the privacy of their individual campsites. It is anticipated that additional development in this area could increase use of the Horseshoe Canyon Trail and increase the feasibility of establishing a public beach at Lower Fire Rock. In contrast to Beaver Creek Campground, development of this camping area would reflect a secondary destination low density campground, as identified in Alberta Recreation and Parks Planning Standard Manual.

Proposed Development

Based on a density of 11.5 sites per hectare (4.6 sites per acre) which is comparable to the existing Upper Fire Rock density, this area could support approximately 95 sites and provide a comparable, if not improved, camping experience to that of Upper Fire Rock. The schematic drawing A-1 shows a possible campground configuration.

The existing vegetation understorey should remain as a natural buffer to ensure camper privacy and to minimize the impact to winter range for moose and deer. To improve pedestrian access with the commercial core and waterfront, a short section of trail would be constructed to connect with the existing Horseshoe Canyon Trail system.



Schematic Layout
Upper Firerock Campground Expansion

B. West Beaver Creek Campground Expansion

Analysis

The site of the proposed campground is a 3.0 ha (7.4 acre) valley bottom area stretching along the lower reaches of Beaver Creek. The site is primarily grass covered with an aspen mix located along the stream course separating the site on the east side from Beaver Creek Campground. Steep topography forms a natural boundary to the west, north and south.

Access to the site is from the internal road system of Beaver Creek Campground and would provide a logical extension to the existing campground development. Further, the existing central building and sewage dump station would serve the new campground. Minimal environmental impacts would be anticipated with development of the site. The high surrounding ridges and valley streams create an attractive edge and setting for this campground, typical of the scenery in the Cypress Hills. The area is generally not visible from other developed sections of the townsite but will require some tree planting.

Existing use varies from vacant land to a site for seasonal staff quarters (discontinued in 1984) and a Girl Guides camp. Development at the Girl Guides Camp is limited to a cook house and pit toilets, and the camp is presently being relocated to a site south of Block 11.

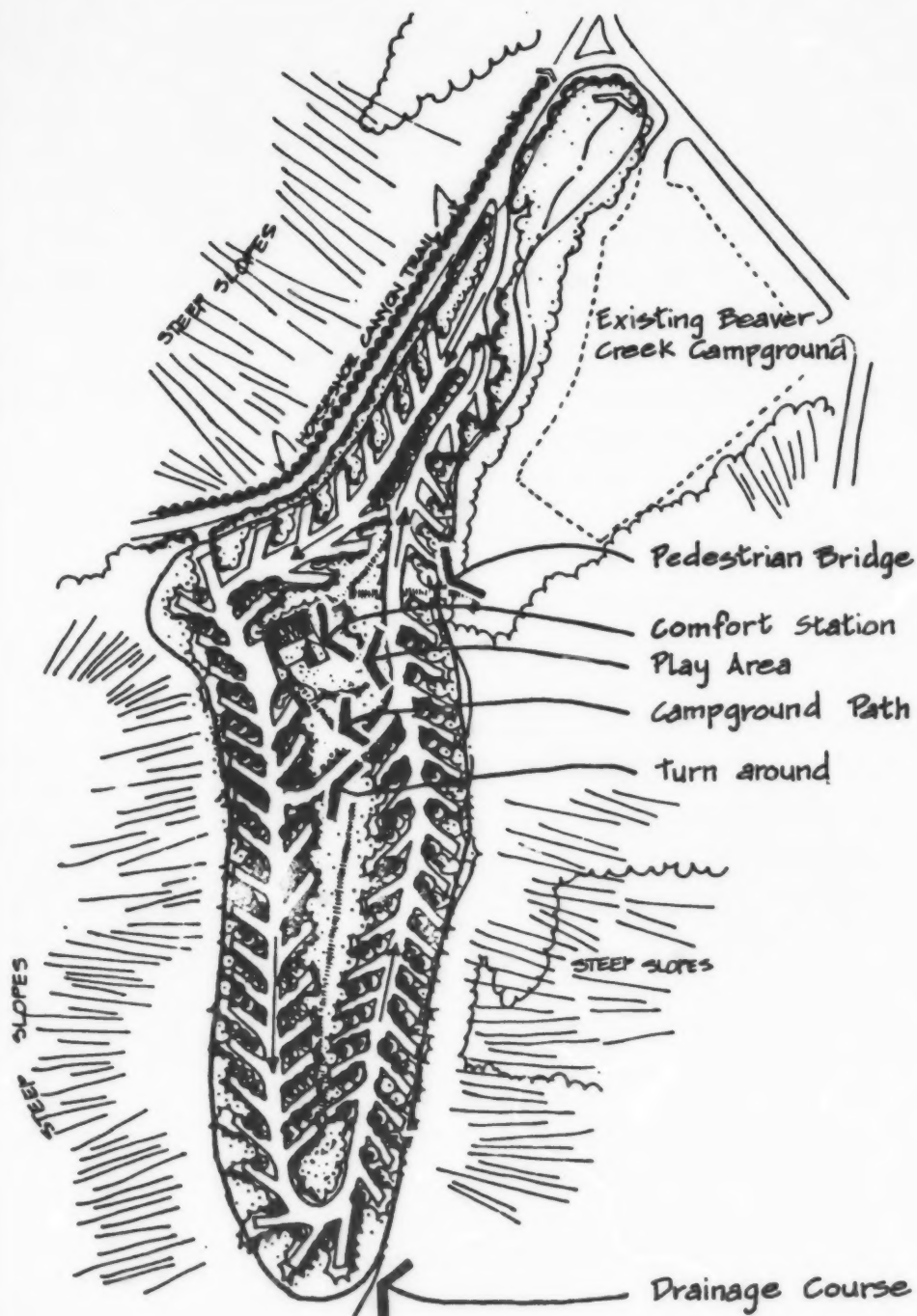
Proposed Developments

The West Beaver Creek Campground is proposed to accommodate extended stays at a moderately high density (25 sites per hectare - 10 sites per acre). The development proposed would be commensurate with that of a major destination high density campground as detailed in the Alberta Recreation and Parks Planning Standards Manual. The density would be less than that of Beaver Creek but would include many of the features found in the existing development. All of the sites would be serviced with electricity and water connections and all would have a stove and table. The campground would be designed to accommodate trailers with the result that individual sites would be hard surfaced in a similar manner to Beaver Creek Campground.

Based on these criteria the campground would contain:

- 60-70 serviced campsites with water and power connections;
- one centrally located comfort station including shower facilities;
- centrally located children's play area;
- pedestrian path and bridge to Beaver Creek play area; and
- extensive planting programme to be initiated including both shade trees and understory to create visual buffer.

The comfort station would be connected to the central municipal sewer and water system.



Schematic Layout
West Beaver Creek
Campground Expansion

C. Ferguson Hill - Lodgepole Campground Upgrading

Analysis

A total of 113 sites are located in these two campgrounds situated above the developed area of the townsite and overlooking Elkwater Lake. The campgrounds have been developed on sandy, well drained soils and the overstorey is comprised almost entirely of dense lodgepole pine with some mature white spruce. There is little vegetation buffering between the sites due to the sparse understorey.

In relation to the other campgrounds in the townsite, Lodgepole and, to a lesser extent, Ferguson Hill are considered by visitors to be the least desirable. Factors contributing to this situation include: high density and minimal visual separation between sites; ground erosion due to over use; distance to the waterfront and difficult walking conditions; lack of open space for informal games; and limited and poor quality recreation equipment.

As a result of an earlier draft of this plan, and in an attempt to increase camper satisfaction and to decrease ongoing environmental impacts, both campground were upgraded during the 1984 construction season. The main upgrading items were:

- reducing the number of campsites from 136 to 113
- providing vault toilets
- upgrading the water system
- providing new site furnishings (stoves, tables) and playgrounds

This upgrading program improved the quality of the camping experience, and has increased the attractiveness of these two campgrounds to park visitors.

D. Overflow Campground

Analysis

The existing overflow campground is located at the entrance to the Elkwater campground, in a prime area near Elkwater Lake. Approximately 3.7 acres (1.5 ha.) in size, the overflow campground has many above standard facilities, such as a picnic shelter and pressurized potable water. The availability of these facilities and services, as well as its proximity to the lake has resulted in many campers utilizing the overflow area as a prime destination campground. This heavy utilization in turn has resulted in an unacceptable negative impact on the natural environment, as well as traffic congestion, overcrowding of the Elkwater campground shower buildings, and operational concerns.

The Elkwater Townsite Development Plan proposes to utilize the existing overflow area for the development of the Elkwater Recreation Centre, as outlined in Section 4.8. This will necessitate the relocation of the overflow campground. This relocation is consistent with the direction outlined in the 1981 Cypress Hills Provincial Park Master Plan, which recommended the development of a new overflow campground.

Proposed Development

The existing overflow campground will be phased out. A new 50 unit overflow campground, with minimal facilities, will be developed on the south side of Jackpot Road, north of Elkwater Lake.

The proposed expansion of both the Beaver Creek and Fire Rock campgrounds will accommodate most of the present overflow demand.

4.3 Girl Guide Camp

Analysis

The Girl Guide camp, which used to occupy a site totalling 1.27 ha (3.1 acres) in the Beaver Creek valley, was relocated in 1986 to an attractive site south of Block 11 adjacent to the seasonal staff trailer area.

This new site encompasses approximately 2.0 - 2.5 ha (5.0 - 6.2 acres) and is well treed with mature mixed white spruce, lodgepole pine and some aspen with open grassy areas interspersed. The topography varies from a slightly to moderately undulating landscape with certain minor interruptions in surface drainage.

In the layout of the new girl guide camp a vegetation buffer was retained between the cottage subdivision, the seasonal staff trailer area and the camp, with minimal disruption to the natural topography occurring in this area. (A similar buffer will be maintained between the girl guide camp and any future development on the reserve land to the west.) The new camp is connected to the townsite's utility system.

4.4 Day Use Areas

A. Elkwater Beach-Waterfront

Analysis

During the high summer season, the waterfront area, including the beach, adjacent open space and marina has been the most important attraction. Although already heavily used on long weekends, visitor satisfaction with the beach area and the swimming experience can be significantly improved.

Based on field observations of beach users, it is apparent that they are largely comprised of three distinct groups. These are: family units from the campgrounds and cottage community; day users (single and family units) and group users (teenage overnight and day users). It is anticipated that the beach will receive increasing structured and non-structured use from these groups which suggests that this area could be the site for a variety of events and activities staged by the Elkwater Recreation Association.

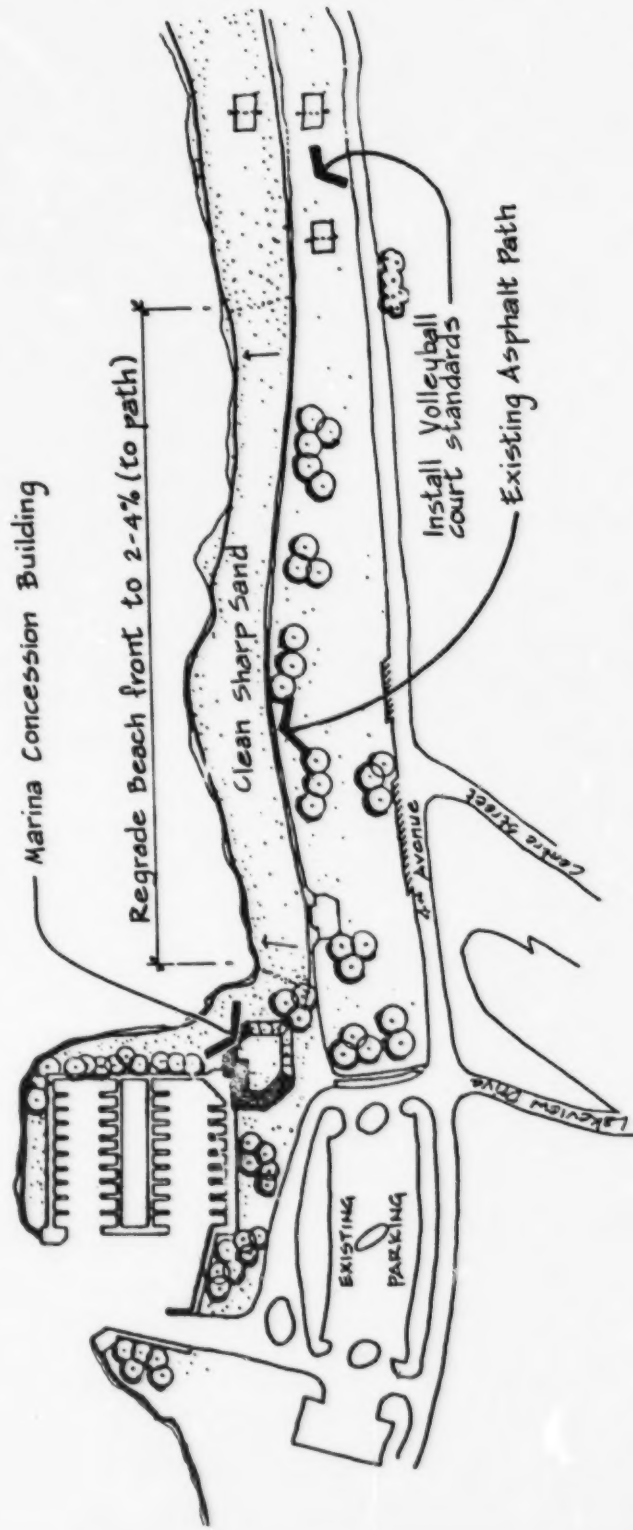
Because of the importance attached to the beach and waterfront in both attracting and maintaining high use levels by tourists, quality beach material, shallow wet and dry beach slopes with adjacent shade and grass areas suitable for informal passive and active games and relaxation are very important. The plan recognizes that the temperature of the water may reduce the amount of time spent by swimmers in the water, further adding to the importance of beach material, slope, etc. for sunning and viewing.

Proposed Development

A number of improvements have been recently undertaken to the waterfront to increase both the capacity and quality of this area. To meet the growing demands by visitors at the waterfront, it is proposed that the following be implemented to promote increased use and satisfaction:

- decrease the grade of the wet and dry beach;
- continue to improve the quality of the beach material;
- locate volleyball standards in an appropriate area, adjacent to the intensive use sections of the beach;

ELKWATER LAKE



Schematic Layout Elkwater Beach - Waterfront

- establish a high volume pedestrian walkway connecting with the commercial core, group day use area and campgrounds; and
- establish attractive park benches overlooking the beach and lake.

The park furniture, boardwalk lighting and signage should form a part of a well-designed image established for Elkwater's public environment.

B. Marina-Beach Day Use Parking

Analysis

The popularity of the beach, marina and recreation facilities to day use visitors is expected to grow with increasing vehicular problems and parking requirements. The existing parking areas at the marina (74 sites), Block 4(130 sites) and shopping centre (80 sites) provide space for up to 284 vehicles. It is further recognized that there are a limited number of parking spaces along 4th Avenue in front of the beach. This is an area where much congestion occurs due to high traffic volumes, turning movement, a large number of pedestrians and a slow down in traffic searching for parking space.

At present, the townsite experiences few parking requirements from tour bus traffic. Expansion in food services and fixed roof accommodation, as well as improved interpretive services, is anticipated to significantly increase the annual number of tour bus vehicles on both a day use and overnight basis. The overall improvements on

the beach and expansion in recreation facilities is expected to increase the parking requirements beyond the existing capacity of the parking areas almost as soon as the improvements are initiated.

Proposed Development

As a result of both existing and proposed new recreation developments in the waterfront area, it is proposed that a parking area of approximately 1 hectare (2.5 acres) be located adjacent to the existing marina parking area to meet these demands. This parking area would be designed to accommodate approximately 300 vehicles including 15 tour buses. Expansion of parking in this area may also assist in reducing traffic congestion occurring from both east and west bound movements at Lakeview Drive and 4th Avenue. Relocation of 200 m (656 feet) of the existing trail may be required to accommodate the parking area.

The design of future waterfront parking areas should include treed landscape buffers both throughout the parking area and along the periphery to reduce the visual impact of the open asphalt and vehicles from both the lake and 4th Avenue.

C. Lower Fire Rock Campground and Day Use Beach - Picnic Area

Analysis

Based on the expansion of Upper Fire Rock, a total of 195 campsites (assuming 10 walk in tenting parties) or approximately 640 campers will be located at the west end of the townsite. Further, completion of the day use boat



Vault Toilet / Change Facility
Existing Picnic Area & Gravel Trail

ELK WATER LAKE

2 Volleyball Standards

180m

45m

Boat Pull-Up on Beach

Beach

Sand

Existing Campground

Trail to campground

Children's Tot Lot

Schematic Layout Firerock Campground and Day Use Beach - Picnic Area

launch and adjacent picnic area will potentially attract an additional 20 to 30 parties to this area. Present development plans for this area do not, however, provide for the establishment of a beach that would serve this large group. Presently, campers are required to walk 1.3 km (0.8 miles) or travel by vehicle to the main beach for swimming (some shoreline activity occurs near the boat launch). Distance from a suitable swimming area is considered a major disadvantage to camping at either Upper or Lower Fire Rock.

In light of the importance attached to water-based activities, the minimal recreation facilities located at the Lower Fire Rock Campground, large numbers of campers, the family composition of the camping population, and the significant walking distance to the townsite, it is suggested that a well designed beach area would be an important feature in attracting visitors to this campground. Establishment of such a beach would reduce the necessity for campers to continually walk back and forth to the main townsite beach and would, therefore reduce traffic congestion within the townsite core. The proposed area would provide an attractive beach with adjacent picnic facilities, an informal games area and would be the terminus of the lakeshore hiking-cycling trail system. Parking for day use vehicles would not be expanded.

Proposed Development

It is proposed that a secondary beach be established to accommodate both the Fire Rock campers and day users at a location immediately west of the boat launch area. The facilities to be established in this area would, to a large extent, be developed to the standards of a high intensity recreation beach and include, for example, the following:

- 180 m (590 ft) linear beach with suitable wet and dry beach material and slope not exceeding 3%;
- a maintained 23 to 30 m wide (75 - 100 ft) grassed open space area for swimming - relaxation;
- approximately 1.5 hectares (3.75 acres) devoted to picnic activities with picnic tables and trails;
- open field area for informal games;
- 45 m (150 ft) wide boat landing area;
- children's play area;
- volleyball standards;
- vault toilets and change facilities; and
- parking for boat trailers and cars.

A water skiing take-off point would be located 800 feet east of the day use area. This take-off point will alleviate the existing conflict between water skiers and swimmers/non-power boaters at the main waterfront area.

4.5 Trails

Analysis

Safe, convenient and attractive pedestrian walkways and cycling trails throughout the townsite are an important link to the many dispersed commercial, camping and recreational centres. A system of bicycle and pedestrian paths will provide a recreational outlet and further reduce the need for automobiles in the townsite. Although all active recreational facilities will be linked to the residential-campground areas, it is not the intention of the plan to establish, throughout the cottage area, sidewalks of an urban standard.

Special sidewalk treatment should occur along the waterfront, as well as in the commercial and medium-density residential districts. The pedestrian walkways in the commercial areas should be designed to improve the street environment through

special street furniture, planting, paving and street lighting. Such attention to pedestrian routes will create a unique and lasting image for the park visitor.

Proposed Development

A walkway system will be developed linking all major campgrounds and use areas. This system, where possible, will be located along abandoned roads, waterfront areas, and other scenic areas and will be separated from automobile traffic wherever possible. In many cases, these trails will also be used by bicycles.

Both existing and proposed pathways will provide a direct route between recreational camping and commercial areas to encourage their use as an alternative to automotive travel. Located near the lake or along ridge tops, the routes will be designed as low speed scenic trails. During the winter months, the trails could be used by cross-country skiers. Although horseback riding will not be permitted in the built-up area, trails may be developed along the periphery to other destinations in the park.

Future sections of trails in the townsite will include:

- specially marked walkway on or adjacent to the Ferguson Hill Road;
- hiking trail connecting Horseshoe Canyon Trail with the proposed Upper Firerock Campground expansion;
- hiking-cycling trail connecting the townsite waterfront trail with the proposed Elkwater Riding Centre, including a branch trail to the Boy Scouts Camp, Park Group Camp, and ski hill; and
- special treatment to sidewalks along 3rd Street, Block 14; 4th Avenue, Block 14; and 4th Street, Block 16.

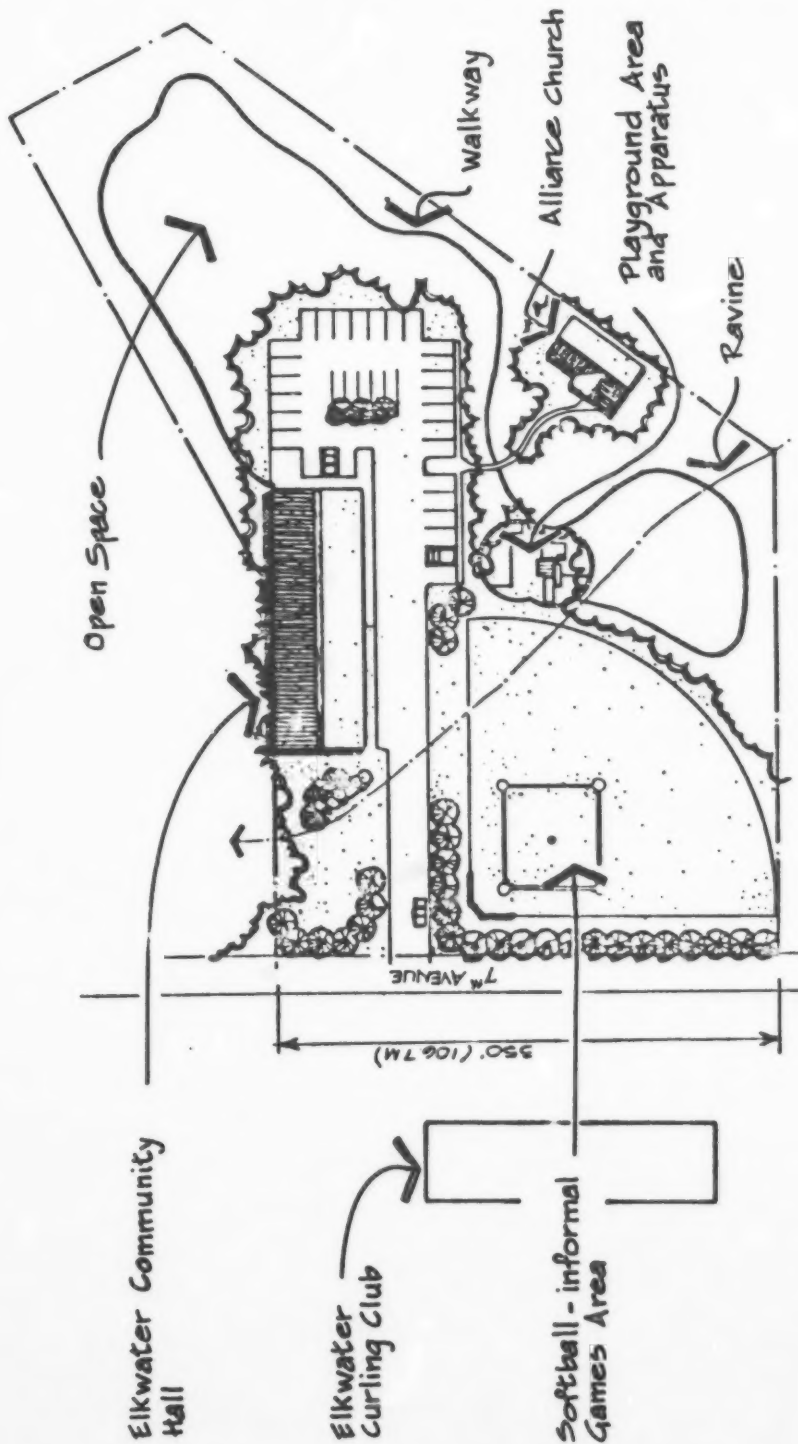
4.6 Elkwater Community Area

Analysis

As a regional tourism destination centre, it is essential that the townsite establish a range of year-round facilities and activities which are attractive to both the permanent and seasonal resident markets. Future expansion in community facilities should complement both the park objectives and existing and future residential development. The plan recognizes, for certain market sectors, that additional summer land-based activities are required to complement waterfront events and activities and future expansion - improvement of winter activities - facilities are required in order to attract and sustain private sector investment. Few visitors are presently attracted to the townsite during the shoulder seasons. It is considered very important that the base townsite population be increased in order to sustain other essential services.

Community recreational facilities are currently widely separated at a number of sites throughout the townsite and generally have minimal space to meet their immediate or future requirements. The existing facilities include a three sheet curling club, community hall, outdoor hockey rink, and the Alliance Church. These facilities have been located in Elkwater for a number of years and primarily serve the cottagers and surrounding rural residents. In contrast to cottage associations in other similar recreation-oriented communities, the Elkwater Recreation Association does not operate either a daily or weekly programme for cottage residents during the summer season and only organizes a limited number of events that are held throughout the year.

←N



Schematic Layout Elkwater Community Association Centre

In order to encourage continued growth and improvement in the community recreation services, activities and facilities, the townsite would be better served if the various facilities were located in a single location. A site that would accommodate both existing and other future facilities would maximize use of parking areas, open space and various services (e.g., kitchen facilities) for ongoing events and activities. Further, an improved site and associated facilities would encourage the development of a "Cottager's Association" calendar of events to be operated on a regular basis throughout the summer season.

Primary users of the Community Recreation Area would be the cottage and other seasonal residents, permanent residents as well as rural residents from outside the townsite. Properly located, this recreation area and associated services would be able to meet the long term recreation needs of the cottagers and permanent residents, and minimize any potential conflicts with day users and campers.

Proposed Development

In order to encourage the development of a community recreation area, community facilities would be located in one area. The proposed location takes advantage of the existing south-east location of the curling club (Lot 38, Block 18) and proposes that future development be extended across 7th Avenue to the south-east utilizing the space occupied by the existing skating rink. The total area involved would be approximately 2 hectares (5 acres), including all of Block 19. The primary facilities to be developed or relocated to this community recreation area would be as follows:

- Community Hall (relocated from Lot 26, Block 14)
- Alliance Church (relocated from Lot 20, Block 14);
- softball diamond that could also be used for special events during the summer and an outdoor hockey rink during the winter;
- curling club (existing site);
- picnic area; and
- joint use parking area.

Various programmes and events for the seasonal and surrounding rural residents could be carried out, possibly by the Elkwater Recreation Association. It is intended that this area become the focal point for the social and recreational activities of the Association which would have a calendar of activities on a day-to-day basis. Maintenance and operation of the facilities would be the responsibility of the Elkwater Recreation Association. Alberta Recreation and Parks would be responsible for the following aspects of the relocation of these facilities:

- utility services;
- site preparation, including roads and parking lots; and
- landscaping.

Compensation for the relocation of the Alliance Church and the Community Hall would be negotiated with the owners at the time of relocation.

4.7 Ski Hill Area

Analysis

The Cypress Ski Hill has been in operation since 1968 and has attempted to serve south-eastern Alberta and, in particular, the Medicine Hat market area. Previous studies have indicated that the market draw has varied from season to season (the longest

season has been 69 days in 1970-1971 and the shortest being only 17 days in 1966-1967) according to snow conditions. The ski hill has typically operated on Wednesday, Saturdays and Sundays and on a yearly average basis the number of skiers has increased significantly, with 300 and 400 skiers per weekend.

As a result of a number of physical and operational problems, a ski facility and marketing plan was prepared for Alberta Recreation and Parks in 1981, and updated in 1986. Based on implementation of Phase I of the Ski Hill Master Plan, the resort could have a capacity of 1383 skiers per day and based on expected market conditions could be expected to reach 33,025 annual skiers days by 1990. Based on optimum conditions (Phase II), the ski area would attract annually over 64,000 skier days.

The total area of the ski hill is approximately 66 ha (165 acres) and is located along Highway 41 on the south-east periphery of the townsite. At present, the hill is only linked to the townsite core by Highway 41, a distance of 1.4 km (0.9 miles). Although closely located to the central core of Elkwater, the lack of commercial fixed-roof accommodation in the townsite, minimal base facilities and apres-ski entertainment facilities have seriously limited the potential economic impact of the resort. The viability of the resort will be significantly improved should additional commercial accommodation and entertainment facilities be established in Elkwater. However, it is essential that the Master Plan for the ski hill be initiated before any significant private sector investment will occur in the provision of tourist oriented goods, services and accommodation.

Proposed Development

The proposed development of the Cypress Ski Hill area is to occur in two phases. The major elements of Phase I include:

- clear trails and slopes;
- retrofit the existing T-bar lift;
- purchase and install triple chairlift;
- construct base lodge (282 m²/3000 sq. ft.);
- construct maintenance centre (74 m²/800 sq. ft.);
- provide utilities (power, water, sewage, gas and communication);
- install snowmaking for 50% of the hill; and
- temporary ski school and rental quarters (2,500 sq. ft.).

Total development of Phase I will occur over a three-year period (commencing in 1986), and will be funded by the provincial government (\$3,000,000.00). Operation of the ski hill will be tendered to the private sector. The development of the ski hill will be designed so as to protect the natural environment, including several rare species of orchids which are found there.

Phase II of the ski hill development is based on creating more of a destination ski resort for the area. It is proposed to include the following additional facilities:

- lighting for night skiing
- an expanded base lodge
- a new double chairlift
- snowmaking to cover 80% of the hill
- expanded ski runs

The Phase II development, estimated to cost \$2.5 million, will only occur if demand warrants, and once the infrastructure is in place in the townsite to support a destination ski area. The private sector would be responsible for the development of Phase II of the ski hill.

4.8 Commercial Recreation Facilities

A. Elkwater Riding Centre

Analysis

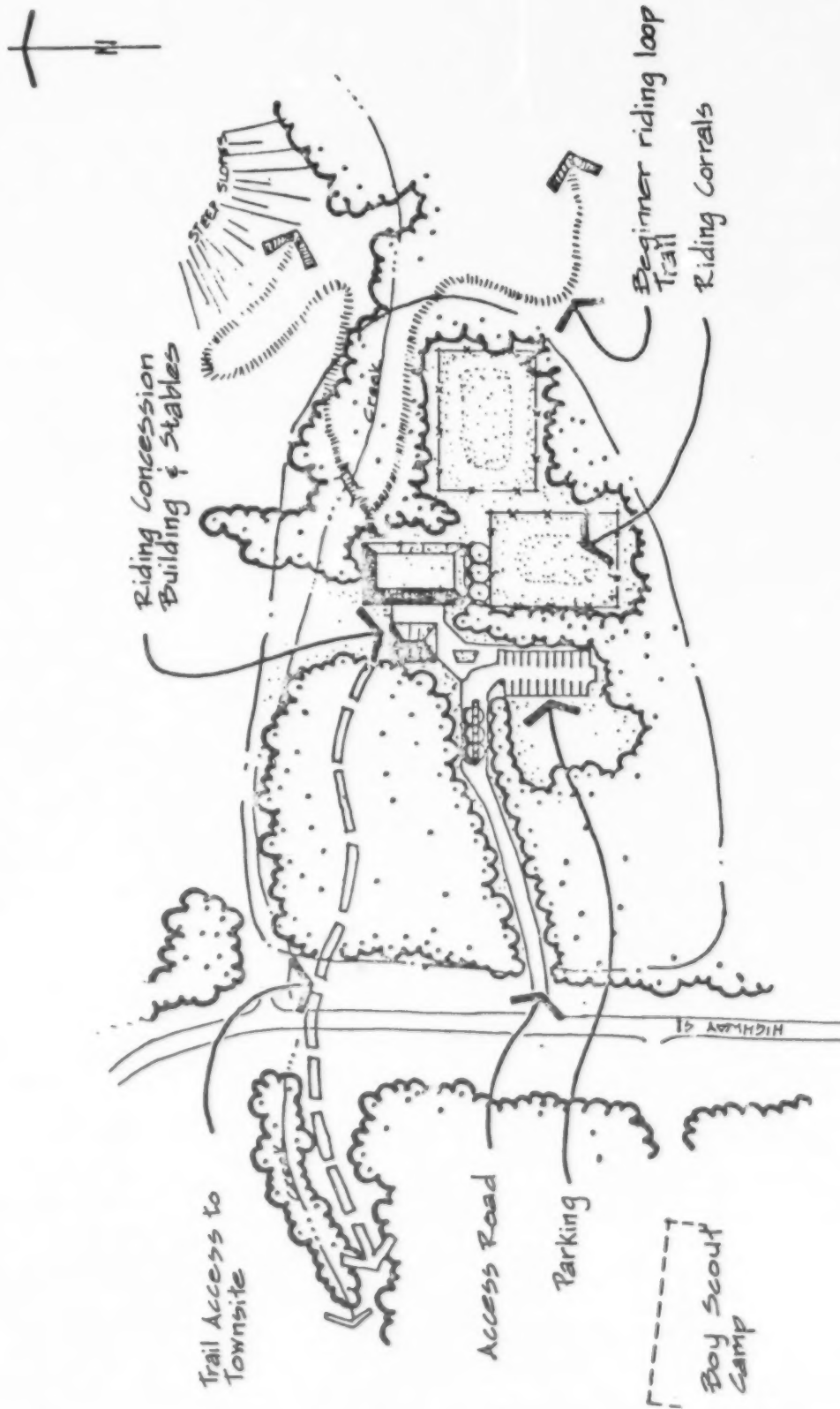
The forested and prairie landscape surrounding Elkwater has excellent scenic opportunities that make it suitable for trail riding. With the increasing popularity of trail riding, a western theme traditional to the Cypress Hills, this activity is considered to be important in generating visitation to the park. Development of a horseback trail riding centre would provide opportunities for hourly, day-long and potentially extended trips in the park. Additional activities could include horsedrawn sleigh rides in the winter as part of the apres-ski activities.

Proposed Development

As a result of the limited suitable area available, a site has been identified for the riding centre adjacent to Highway 41, approximately 1.0 km (0.62 miles) from the waterfront. It is suggested that an attractive site be selected for the corrals and riding concession buildings. Regard for an archaeological site located in the area must be given in the siting of any development in order not to impact on the resource.

The basic facilities to be included in the riding centre are:

- office, reception and washroom building;
- stable;
- holding corrals;
- 20 car parking area for visitors and staff; and
- riding trails of various lengths and destinations, leading away from the townsite.



Schematic Layout
Riding Centre

B. Elkwater Recreation Centre

Analysis

The Elkwater Recreation Centre will provide a much needed land-oriented recreation facility to both attract and serve campers, cottagers and day users of all ages during the summer season. The proposed 1.5 hectare (3.7 acre) site is well located in respect to the predominant user groups (day users, campers and cottagers) and nearby parking areas. It is anticipated that the facilities would be very popular with visitors during the early morning, late afternoon and evening when many people have moved from the beach to more active recreational activities. Further, the facilities may encourage increased visitation by cottagers to the townsite during the shoulder seasons.

The site of the proposed intensive use recreation area is flat to gently sloping with limitations to expansion on the east (Beaver Creek), south and west (Elkwater campground), and north (Lakeview Drive). Implementation of the total programme could result in shifting the existing Elkwater Complex parking lot north.

Proposed Development

The facilities should be designed and constructed to support intensive use and be attractive to a large number of users of various age groups. Facilities such as mini-golf course, tennis courts, etc. will be operated by a concessionaire.

As outlined in the concept plan, the primary activities and developments are as follows:

- 4 tennis courts (unlighted);
- 18-hole mini-golf course;
- 4 horseshoe pits;
- open space area for relaxation area/sunning;
- children's shower deck;
- children's play apparatus;
- shuffleboard; and
- comfort station and central concession-maintenance building.

To both protect the facilities from vandalism and to provide control for the operator, a fence may be constructed around the centre. Further, the design must allow for a large volume of pedestrian traffic moving between the beach and the campground at this location.

C. Swimming Pool

Analysis

The development of a swimming pool in Elkwater has been an ongoing public concern for many years. Although the Master Plan for Cypress Hills Provincial Park states that a swimming pool will not be constructed, the public has continued to press for the development of such a facility. Other alternatives to the present swimming opportunity in Elkwater Lake, such as a tidal pool in the lake or a pool associated with a privately developed motel, have been studied and rejected as either unfeasible or impractical.

The Master Plan rejected the development of a swimming pool based on the following factors:

- a) It would be incompatible with the Natural Environment classification of the park.
- b) The existing lake provides park visitors with an adequate swimming opportunity.
- c) The development of a pool would incur high capital and operating costs.

However, through many submissions to the Department, the general public has requested the development of a pool, based on the perception that existing lake conditions (water quality and temperature, weeds, and user conflicts) prevent the lake from being utilized as an adequate swimming opportunity. Pressure for a pool has increased since the construction of a new pool in the Saskatchewan Cypress Hills Provincial Park. This pool is operated and subsidized by the Saskatchewan provincial government.

Proposed Development

The Department will support the establishment of a swimming pool in Elkwater in the vicinity of the group day use area, if local municipal authorities or organizations are willing to enter into a joint venture arrangement and contribute to the cost of such a facility. Management of the pool would be through a group or organization other than the Department of Recreation and Parks.

The type of pool (size, indoor or outdoor, associated facilities such as sauna, etc.) would be subject to negotiations between the Department and the local municipality/organization as would be the apportionment of costs.

D. Other Commercial Recreation Facilities

The townsite includes two additional commercial recreation concessions that were introduced in 1984. These are a food concession, located on the waterfront at the marina building, and a bicycle-boat-canoe rental concession, located adjacent to the East End Group Day Use Area at 3rd Street. These facilities encourage both individuals and family groups to participate in activities, away from the intensive use areas of the townsite. Both boating/canoeing on Elkwater Lake and cycling in the park present visitors with a new and interesting perspective of the natural features and man-made amenities in the Cypress Hills.

Although located outside the townsite and the park boundary, the golf course is an important generator of visitors to Elkwater and a popular activity of the cottage community. It is anticipated that the continued improvement in the quality of the course and club house facilities by its owners will increase the future attractiveness of private sector investment in seasonal cottage and commercial opportunities in the townsite. Further, the hosting of weekend tournaments during the shoulder season will directly assist motel and restaurant operations in Elkwater.

4.9 Commercial Accommodation Facilities

A. Resort Motel

Analysis

The overall concept of the Elkwater townsite's development and growth is seen as a year-round destination area. The community's physical design would follow a distinctive village theme in appearance and include the amenities of a first class resort.

Elkwater has a unique opportunity to capture the advantage of its location and geographical setting located within the Cypress Hills and its close proximity to the Trans-Canada Highway as well as Highway 41. The townsite has the opportunity to increase its visitation by attracting regional and Trans-Canada Highway pass-through visitors, including the group tour market. In order to meet the requirements of these market segments, it is essential that commercial facilities, food and beverage services and attractions be established of a quality comparable to other resorts available to these markets.

The proposed resort motel is attractively located in close proximity to the waterfront. Further, it is located near the entrance to the townsite, minimizing tourist traffic through residential areas. Both on a long and short term basis, the resort motel will form an anchor for year-round activities.

The proposed motel location includes Lots 7-11 and 19-26, all in Block 14, encompassing approximately 0.9 ha (2.2 acres). The proposed development would have frontage along both 3rd and 4th Avenues, although it is anticipated that the direction of development would be toward 4th Avenue. The area is currently occupied by a number of land uses, including the Elkwater Community Hall (Lot 26), Alliance Church (Lots 19 and 20); Alberta Recreation and Parks staff apartment block (Lot 11); AGT trailer (Lots 9 and 10) and several vacant lots (7 and 8, 21-25, 27). With the exception of a small drainage course that runs from south-east to north-west, the development area has no known physical constraints for development.

Proposed Development

Alberta Recreation and Parks will encourage the private development of a motel and related small-scale commercial development in an effort to attract more tourism on a year round basis. The natural amenities provided by the Park, the ski hill and other commercial attractions should provide an attractive force for such economic activity. The plan emphasizes that the revitalization of Block 14 is a necessary part of making Elkwater a more attractive place for visitors. It is anticipated that the resort motel area will be an attraction to visitors and that associated small scale commercial outlets will be regarded by the visitor as a part of the recreational experience.

The following should be considered as general guidelines for the development of a resort motel and associated commercial area.

- a) approximately 50 standard accommodation units;
- b) licensed restaurant/dining room to accommodate approximately 80-100 persons;
- c) small commercial shops (newstand, clothes and gifts) as part of the motel complex;
- d) tennis courts;
- e) a double purpose meeting and games room that could seat approximately 80-100 persons;
- f) children's playground; and
- g) extended 4th Street to 3rd Avenue.

B. Rental Accommodation

Analysis

Currently the Elkwater Greentree Motel is the only fixed-roof rental accommodation in the townsite. Although the 19 unit motel and 3 rental cottages have, for many years, been recognized as being inadequate in meeting both existing and future tourism requirements, no expansion has occurred. The lack of commercial accommodation is considered to be a significant factor in limiting winter use and in discouraging private sector investment. With the development of additional summer and winter activity facilities, expanded and upgraded accommodation will be warranted to meet visitor requirements.

Due to the lack of fixed-roof rental accommodation, it is proposed that Block 16, including Lots 19 and 20 of Block 17, be redeveloped to create a medium-density family rental district. The total area for the proposed development is 1.89 ha (4.7 acres). The proposed area is well located near the entrance to the townsite, attractively sited in view of the lake and is within close walking distance of the waterfront and the proposed resort motel development.

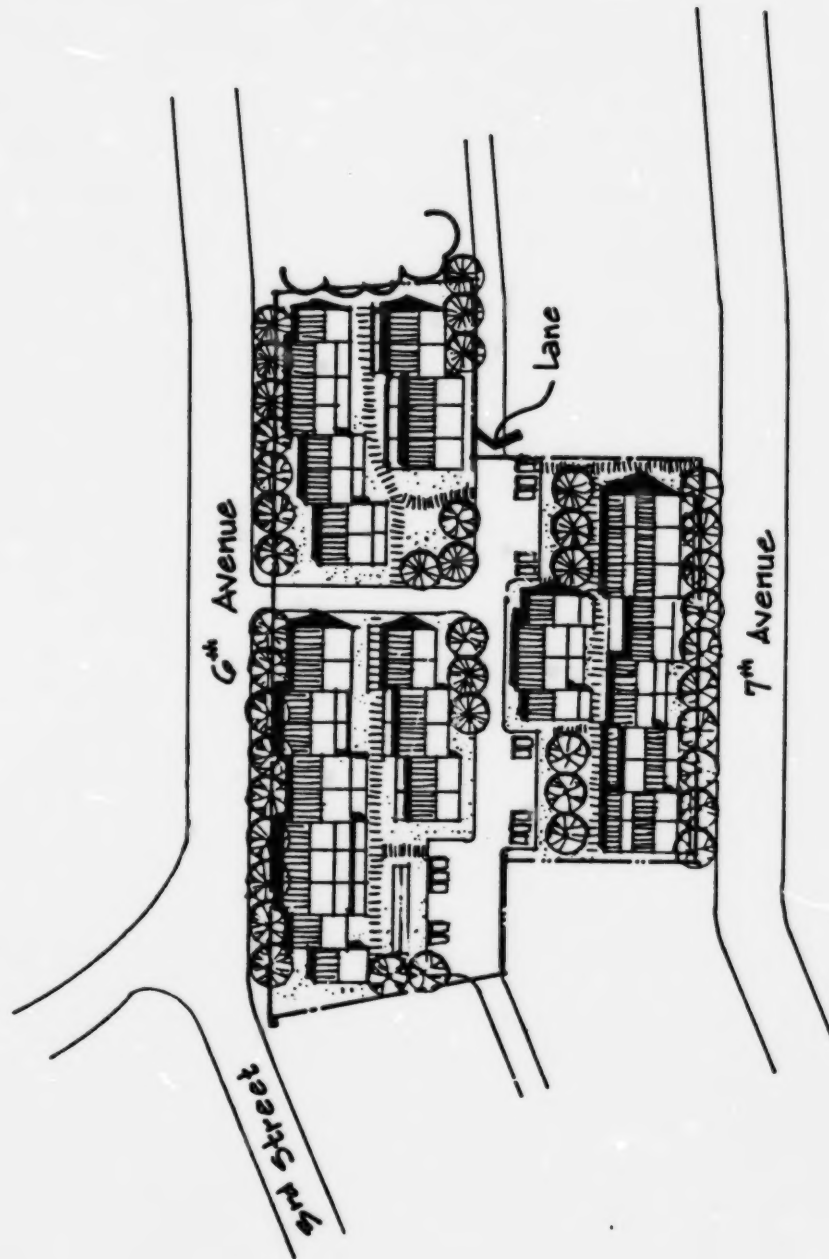
Existing development presently includes a number of uses that would be acquired prior to proceeding with the total development. They include: the Greentree Motel, including 3 additional cottages on 4th Street (Lot 20, Block 17), seasonal cottages on Lots 1 and 3, Block 16, and several vacant lots (Lots 4-8, Block 16 and Lot 19, Block 17).

Much of the area is suitable for development, although some steep sloping areas occur in the vicinity of Lots 6-8 and may require special building and design requirements.

Proposed Development

Medium density townsite accommodation, resembling single-family detached cottages in size, scale and design, will be located near the entrance of the townsite on the east side of 4th Street. To maintain a level of development compatible with other residential areas of the townsite, most of the units will be attached as triplexes or quadruplexes to take advantage of the sloping topography and to minimize disruptions of the visual scale and character of the development. The units, would be either one-storey, split level or two storey. Each unit would have open space in the front and back yards and open on to a common green area. Each unit would include an individual parking stall, 2 or 3 bedrooms, living room - dining room and kitchen. The higher density areas of the development would occupy the steep slopes with the units staked into the hillside, conforming to the gradient and visually blending into the site.

It is recognized that the development can proceed in the short term without the acquisition and redevelopment of Lots 1 and 3, Block 16 which are currently occupied by a private cottage. Development of medium density rental accommodation units on these lands will only occur at such time as the existing residents wish either to relocate in the townsite or allow their property to be purchased.



Schematic Layout
Medium Density Owner Occupied
Seasonal Housing

C. Condominium/Rental Accommodation

Analysis

Within the developed residential section of the townsite, there are limited opportunities for increasing the density of development with privately owned townhousing, quadruplexes or other innovative forms of second home properties.

Further, the lack of developable land outside the existing subdivision plan, coupled with the objective of Alberta Recreation and Parks to minimize any significant geographical expansion of the developed area of the townsite, severely limits any potential to significantly increase the total number of housing units in Elkwater.

One opportunity to increase the residential density occurs in Block 18. The Plan proposes the redevelopment of Lots 10-14 and 26-30 with the relocation of the gas station and concession and development of the vacant lots over the long term.

The relocation of the gas station to a suitable location along the main park road is proposed in order to reduce vehicular traffic in the residential area and to improve safety conditions for pedestrians. Further, increasing the density to 30-35 dwelling units per hectare will provide increased capitalization in the townsite, greater revenues to the commercial operators and decreased costs for municipal services on a per lot basis. This type of seasonal residential development will provide a greater diversity in the provision of vacation housing units for the public and will ensure increased accommodation suitable to a wide range of income and family types.

The designated area is approximately .99 ha (2.45 acres) in area with frontage on 6th and 7th Avenues. Much of the development area is flat to gently sloping. A narrow drainage course cuts through the property which may be a building and design consideration in locating access roads and building sites. Generally, the gradual sloping topography and mature vegetation create an attractive residential environment.

Proposed Development

Medium density, condominium or rental, seasonal residences in Block 18 may include semi-detached units, quadruplexes, maisonettes, stacked townhouses or garden courts at a net density of between 30 to 35 units/hectare (12-14 units/acre). Building form should have a common theme and the bulk, scale and height should reflect the site characteristics and adjacent land uses. Therefore, it is important that recognition of the natural site amenities in the siting of housing units be made.

It is important that the design and development of these vacation properties be suitable for the intended seasonal housing market. Major attractions to the townsite will continue to be the summer water and land-based recreation attractions as well as the ski hill. It may not be feasible to market this type of housing, however, until such time as expansion and upgrading of the ski resort has been initiated.

4.10 Commercial Facilities

A. Elkwater Complex

Analysis

The Elkwater Complex is located in the west-central part of the townsite in Block 3 and is strategically situated immediately adjacent to the high density campgrounds, residential area and is in close proximity to the waterfront for day users. The Complex is located on Lots 13-17 and occupies approximately 2.09 ha (5.2 acres) including the parking area.

The Elkwater Complex includes a restaurant, grocery store, laundromat and post office. The restaurant has a capacity of 53 persons and during the summer season is often crowded and unable to meet the requirements of the general public. Although originally designed to include an outdoor dining area along the west side of the building, this has never been implemented. The problem of overuse is expected to increase with added waterfront development, completion of the group day use area and an increasing number of campsites at Beaver Creek.

The laundromat, post office and grocery store serve the surrounding ranches as well as the townsite residents. Although these facilities (i.e. laundromat and grocery store) have been able to serve the community in an adequate manner, increasing numbers of campers and day users have resulted in further demands for a greater variety in goods and services. Expansion to this section of the Complex may soon be required.

Proposed Development

The area of the Elkwater Complex will continue to be the primary grocery shopping centre in the townsite. However, a number of alterations are proposed at this time for improving the use of this government leased facility.

These are:

- expansion of the restaurant area to the west, including an outdoor dining area;
- potential expansion of the parking area to the north to include Lot 18;
- examination of the need to expand the grocery store;
- continued landscaping adjacent to and surrounding the building; and
- expansion of the complex area to include other commercial facilities such as a sporting goods store, drug store, etc.

Due to cost considerations, no facade improvements are recommended for the building until such time as it undergoes additional expansion or additional commercial facilities are developed adjacent to it.

B. Service Station

Analysis

The existing Petro-Canada service station provides an essential service in the townsite. However, it is located in the heart of the residential cottage subdivision, thereby causing safety concerns. As well, the proposed establishment of the motel and rental units along 4th Street and 4th Avenue, with the resulting realignment of the townsite thoroughfare, necessitates the relocation of the service station from an economic viability point of view.

Proposed Development

Over the long term the service station will be relocated to an area along 4th Street now occupied by the Greentree motel. Details of the relocation will be negotiated with the present service station leaseholder.

4.11 Cottages

A. Seasonal Cottage Development

Analysis

The townsite has a total of 50 vacant lots¹ originally proposed for cottage development in the present plan of subdivision. In recent years, Alberta Recreation and Parks has had a policy of restricting private seasonal cottage development in the townsite. Some of the remaining lots have certain environmental constraints that may require special building considerations or eliminate development completely. However, in many instances, the properties are considered to be quite suitable for low density cottage development. It is considered important that this development be permitted to occur in order to reduce the costs for municipal services on a lot by lot basis, strengthen the Community Recreation Association and to support the local businesses.

¹The number of vacant lots identified does not include those identified in this plan for medium-density redevelopment and commercial purposes. Further, building restrictions may apply on certain lots that have severe environmental problems and a certain number of lots will be required for relocating residents from the proposed commercial core.

Proposed Development

In recognition of the intent of the plan to have the cottage subdivision remain a viable entity in the townsite, the development of suitable vacant lots will be encouraged through making the necessary improvements to the site and providing minor extensions to municipal services when and where necessary.

Infilling or redevelopment of built-up areas, however, will proceed only if municipal engineering services are deemed adequate.

B. Residential Reserve

Analysis

A large area of approximately 5.74 ha (14.2 acres) is located between the new Girl Guide Camp, the water tower and Block 11. The area has some potential for residential development and recreation activities, although a number of ridges and low lying areas would require special treatment if this area were to be utilized.

Proposed Development

This reserve is to be left in its natural state until such time as market conditions require additional area for vacation home development and designs for the area can be implemented with little impact to the environment. Should future development occur in this area an adequate buffer will be maintained between the new development and the Girl Guide Camp.

C. Cottage Priority Areas

Analysis

The 1981 Cypress Hills Provincial Park Master Plan outlined as one of its goals "a gradual and phased program of acquiring private cottages on a priority basis". All cottages in the townsite were categorized into one of four priority areas, based on the long or short-term needs for the occupied lands for public access or the development of recreational facilities. The priority areas leasing arrangements were defined as follows:

Priority Area One:

- Leases will not be reviewed upon expiration.
- Leases may not be assigned.

Priority Area Two (presently no cottages in this category):

- Lease renewals will be made for a term of no more than five years.
- Leases may be assigned to the immediate family only.

Priority Area Three:

- Lease renewals will be made for a term of not more than five years.
- Leases may be assigned to an eligible party.

Priority Area Four:

- Lease renewals will be for a maximum of 10 years.
- Leases may be assigned to an eligible party.

The Cottage Priority Areas system was opposed by many cottage owners who felt that it introduced a feeling of uncertainty into the townsite. As well, many of the areas zoned for Priority Areas 1-3 were not required for public access purposes, and their acquisition was consequently not actively pursued by the Department.

Proposed Development

The Elkwater Townsite Development Plan establishes the townsite as a viable regional tourism centre, with a strong private sector involvement. The cottage community will remain as the central part of Elkwater, since it is an established form of recreation activity. Land use details regarding the cottage subdivision are described in Section 6.2 of this plan.

In order to facilitate the implementation of the plan, the Cottage Priority Areas have been modified as follows:

- All cottages will be classified as Priority Area Four.
- The two cottages (Lots 1 and 3, Block 16) requiring acquisition for implementation of the plan will be acquired by the Department on an 'as needed' basis. These cottage owners will have the option of relocating in the townsite, with the relocation cost negotiated with the Department.

Reclassifying all cottages as 'Priority Area Four' will remove the uncertainty surrounding the future of the previous Priority One and Three cottages, and will allow the cottage subdivision to remain a viable entity within the planning timeframe (40 years) of this plan.

4.12 Park Administration and Maintenance

Cypress Hills Provincial Park has a large permanent and seasonal staff that require housing in or near the townsite. As well as housing requirements, the park's staff have both an administrative and maintenance centre that serves the entire park. In addition, there are a number of regional services and utilities such as an Alberta Transportation maintenance yard and an Alberta Government Telephones service trailer within the townsite.

As the townsite expands in terms of both visitor use and staff on a year round basis, there will be increasing requirements for additional administrative and essential services. At present, there are limited security and health services that will need to be upgraded during the peak season.

The following section identifies areas that may be suitable for administration and maintenance yard expansion, seasonal and permanent staff housing.

A. Administration and Maintenance

Analysis

Near the entrance to the townsite is the maintenance yard that accommodates the park's administration offices, maintenance buildings and an Alberta Transportation equipment yard and maintenance building. In addition, the Elkwater fire hall is in this area.

The site is generally visible from the park entrance road, although the visual impact on the visitor is minor. Expansion of the townsite population will likely result in requirements for additional public services and maintenance buildings. These buildings will need to be located at a site that is accessible to the public yet visually screened from the main entrance road and trail system.

A large, relatively shallow sloping tract of land is situated immediately to the south of the existing yard. Field analysis indicates that the area could be used for administrative offices, open storage and potentially large storage-maintenance sheds.

Proposed Development

It is proposed that the park administration and maintenance area remain in its existing location and be expanded according to site conditions. Where required, additional tree planting may be undertaken at the entrance area to provide a visual screen of the yard from all activities along the townsite entrance road in the area immediately along the entrance road, and in the area immediately west of the entrance to the yard.

It is also the intention of the plan that an area of approximately 4.09 ha (10.1 acres) be reserved for future administration - maintenance requirements. Potential uses for this area could include, although not be limited to, an R.C.M.P. office, ambulance, fire hall, Alberta Government Telephone office, and other maintenance buildings. Until such time as the area is required for these uses, it shall remain open space.

4.13 Staff Housing

A. Seasonal Staff

Analysis

In 1982-1983, Alberta Recreation and Parks undertook an assessment of its seasonal staff housing requirements. As a result it was decided that a centralized seasonal staff trailer village would be developed within the townsite.

A site of approximately 1.17 ha (2.9 acres) was designated for this use in an area immediately south-west of the curling club. The topography is relatively flat, although interrupted by various minor ridges. Vegetation varies from open grassland to mature white spruce and pine.

The proposed development has been divided into two phases according to future demand requirements. Although the area's future development is limited to the south and south-east, there is additional land capable of supporting further trailer units to the west.

Proposed Development

The proposed development, initiated in 1984 and completed in 1985, includes two phases. In Phase 1, the seasonal staff accommodation consists of four permanent trailers, each with a capacity of eight persons, and three additional rental trailers, each with a capacity ranging from 8 - 10 persons. Thus, in Phase 1, 56 to 62 seasonal staff can be accommodated in the trailer park.

Other developments in Phase 1 included utility services, parking for up to 38 vehicles, a cook's trailer, winterized kitchen, dining trailer, establishment of a picnic area and associated tables and stoves, plus a trailer pad for a seasonal concessionaire's accommodation trailer.

In Phase 2, an additional trailer is to be employed with capacity for a further 8 to 10 persons.

B. Permanent Staff Housing

Analysis

Elkwater townsite has very little developable land beyond the existing built-up sections. Without increasing the high cost of redeveloping existing blocks of cottages, there are limited opportunities to increase the supply of accommodation units for park and commercial sector employees. There is also a requirement to relocate the

existing permanent staff apartment block to a new location. As a result, it is considered important that reserves be identified to meet future needs and provide a pleasant living environment.

The proposed permanent staff housing development area includes 199 m (653 ft) of frontage along 7th Avenue which is gradually sloping throughout and will present limited problems in siting buildings and internal roads. Mature spruce and pine characterize the area and the steep slopes along the south-east and north flanks of the property provide attractive buffers to the development.

A former permanent residence is located at the entrance to the townsite across the entrance road from the administration and maintenance area. The residence has, for a number of years, been used for permanent park staff accommodation. This structure is no longer an appropriate land use and should either be removed or demolished.

Proposed Development

It is proposed that an area adjacent to the proposed community centre be reserved for future permanent staff housing requirements. Development on this site could be done by the private sector and include a variety of housing forms for permanent staff of various family types and developed at a density of 20 units/hectare (8 units/acre). Housing types in this area could include single family residences, low rise apartment blocks and townhousing units. Because of the particular neighborhood character of this development, the internal road pattern should be designed to provide safe and convenient access to pedestrians as well as adequate off-street parking areas.

It is also proposed that the staff residence at the townsite entrance be removed when the economic life of the structure is past. All evidence of the existing building should be removed and the area landscaped in such a manner as to create a sense of arrival for visitors at the entrance to the townsite.

4.14 Vehicular Circulation

Analysis

Access to the town is primarily by private automobile, although more frequent tour bus traffic may be expected in the future. The majority of tourists enter the townsite from the north along Highway #41.

A review of existing transportation conditions, coupled with future opportunities for redevelopment, reveals a number of important issues that must be addressed and resolved. The following list identifies seven general areas:

1. Vehicle congestion and non-camper traffic along Ferguson Hill Road;
2. Pedestrian-vehicular conflicts along Ferguson Hill Road;
3. Congestion along 4th Avenue between 3rd Street and Sherwood Crescent;
4. Conflict between vehicular day use traffic and pedestrians within the cottage community;
5. Safety hazards at the junction of Highway 41 and the townsite entrance road.

6. Need for better directional signing; and
7. Need for improvements to traffic control and parking.

An important goal to strive for is the development of a traffic circulation system that will provide for the safe and convenient flow of traffic to the commercial area, the day use - waterfront area, the cottage community and the campgrounds.

Proposed Development

To eliminate some of the traffic congestion in the cottage community, and to reduce pedestrian-vehicular conflicts, the main thoroughfare of the townsite should be re-routed along 4th Street and 4th Avenue, as opposed to along 6th Avenue and 3rd Street, as presently exists. Improvements in this regard would be an important safety consideration in light of the existing large number of vehicles (maintenance, bus, private) and pedestrians using these corridors in gaining access to and from the waterfront. Further, use of 5th Avenue by non-cottage traffic as an alternative to 4th Avenue would be significantly reduced, once again reducing cottager-vehicle conflicts.

The immediate implication of altering the existing traffic pattern is to direct non-cottagers entering the town to the accommodation area, the Elkwater Complex commercial area, the waterfront, and campgrounds to the west. A modified "T" intersection will be required at 4th Street and 6th Avenue and at 3rd Street and 4th Avenue, as well as redesigning and upgrading 4th Street and 4th Avenue.

To minimize the pedestrian-vehicle conflicts that typically occur in Elkwater and Beaver Creek Campgrounds, the Ferguson Hill Road between the Murray Hill Road and Lodepole Campground will be closed to north-bound non-camper traffic during the summer season.

An additional development recommended to reduce the potentially serious conflict between pedestrians and vehicles on Ferguson Hill Road is the establishment of a separate asphalt pedestrian lane. Agreement to restrict traffic on Ferguson Hill Road will need to be gained from Alberta Transportation.

With the continued growth of the community the demand for private vehicle and tour bus parking is anticipated to increase significantly.

Ideally, this parking area should be located east of 3rd Street to reduce traffic along the waterfront (some parking spaces were constructed in this area in 1983); however, due to a lack of suitable land, this parking area will need to be situated west of the marina along Lakeview Drive. It is essential to co-ordinate the parking lot ingress and egress with east-west traffic movements.

In order to eliminate the present safety hazard associated with the junction of Highway 41 and the townsite entrance road, the re-design and upgrading of this intersection will need to be carried out. Alberta Transportation will be requested to undertake this project.

Increasingly important in Elkwater will be the development of a new graphics and signage system for traffic direction and control. Direction to visitor parking areas must be clearly indicated at the entrance to the townsite as well as at the Cypress Hills information pull-off on Highway #41.

4.15 Utilities

The proposed utilities upgrading are:

Water System

To ensure the water system satisfies the proposed development concept, the water system should incorporate the following:

1. The upgrading of the commercial area water distribution system to provide an adequate water supply for fire protection and provide sufficient quantities and water pressure to satisfy future demand. This can be accomplished by:
 - a) Replacing an existing 38 mm watermain which runs from the alley in Block 17, up Acadia Crescent, across 4th Avenue and Lot 25 to the alley in Block 14 with 150 mm Ø watermain.
 - b) Installing 150 mm Ø watermain running east and west in the alley and tying into existing mains on 5th Street and 3rd Street respectively.
2. The installation of a 150 mm Ø watermain to supply water to the proposed permanent and rental housing development. This water line should be located down 7th Avenue between 3rd Street and the government road allowance tying into the existing 150 mm Ø watermain at each location.
3. The modification of the system by providing looping in the commercial area and extend the 38 mm Ø watermain on the 6th Avenue to connect to the 150 mm Ø watermain on 2nd Street.

4. The low pressure problem in the seasonal staff housing area is now being rectified by Alberta Public Works, Supply and Services by the addition of a pump and pressure system for this area only. Cottagers along 7th Avenue who have low pressure problems should install their own pressure system at their own cost.
5. The development of two more wells to provide additional water quantity in order to meet projected demand.
6. An additional 200 m³ of water storage should be added to the system as townsite development progresses. This storage should be located in the lower areas of the townsite so that if a fire pump was added to the system in the future, it could be added at this location. An excessive pressure problem would occur if a fire pump to serve the lower townsite was located at the water tower.
7. The existing fire hydrants provide an adequate flow for fire protection; however, due to low pressure in some areas, the use of a pumper truck is necessary. Use of the pump truck to boost pressure is certainly adequate; however, with the addition of a fire pump at the proposed reservoir site, enough pressure could be supplied to the hydrants to facilitate the use of a hose and nozzle.
8. Four more fire hydrants should be added in the townsite area to improve the level of fire protection.
9. With regards to providing potable water to the ski hill, two alternatives were assessed as either a) connecting to the townsite's system for an approximate capital cost of \$200,000, or b) constructing wells at the ski hill site for an approximate cost of \$100,000. It should be noted that in both cases, a reservoir would have to be constructed for fire protection.

10. Based on this assessment, the potable water supply for the ski hill should be provided through the development of wells at the ski hill. At this time, the amount of ground water available at the ski hill is unknown. A groundwater study and well testing will be necessary.

To provide water for the snowmaking equipment three alternatives were assessed as follows:

- a) Water could be obtained from runoff, or from the creek and stored in reservoirs for winter use. The cost of this alternative is estimated to be \$100,000.00.
- b) Water could be provided from Elkwater Lake directly to the snowmaking equipment. The cost of this alternative is estimated to be \$310,000.00.
- c) Water could be pumped from Elkwater Lake and stored in a reservoir. This would allow for a smaller pipe size and pump size, but would add to the cost of a reservoir. The cost of this option is estimated to be \$280,000.00.

From this analysis, it appears alternative "a" is the most cost effective, however a hydrologic surface runoff study to determine the frequency and amount of flow in the creek should be performed. This will determine if the risk of runoff not providing enough water is acceptable. Alternatives "b" and "c" provide a reliable source of water, but at a cost premium.

Sewage System

To ensure the sewage system satisfies the needs of the proposed development concept, the sewage system should be improved by:

1. Installing a 250 mm Ø sewage main on 7th Avenue to provide service to the proposed permanent and rental housing development in Block 18. This main should run from 3rd Street down 7th Avenue and the government road allowance, and connect into the existing system at 5th Street.

To provide a sewer collection system for the cottages, two options were assessed, which were then compared with the present system of septic tank and tile fields or the use of holding tanks.

The two options assessed were the use of a standard gravity sewer system or the use of a low pressure sewer system. The low pressure sewer system is used in numerous small communities today because of its low capital cost and low operation and maintenance costs. The low pressure sewer system requires each residence connecting to the system to have a two cell septic tank and a septic tank pump. The septic tank pump conveys effluent from the second cell of the septic tank to a low pressure sewer main. All effluent is then directed to the sewage lagoon. In the case of Elkwater and the cottage area, the effluent would be directed to either one of the main lift stations in the townsite.

When assessing cost for the low pressure sewer system versus the standard gravity system, a normal concern is that the cost for the service connection on the low pressure system (eg. pump, septic tank and 1 1/4" diameter service connection line with backflow preventer) is more costly than the service connection to a gravity sewer. In numerous studies it has been found that the cost of the service connection is about the same, and in fact, in existing communities where residences already have septic tanks in place, the average cost of connecting to the low pressure main is less than if a gravity system was installed.

When assessing operation and maintenance cost for the two systems, it can be assumed that operating and maintenance costs are similar for either system. Usually in a gravity system, a sewage lift station is required and one of the main problems with gravity systems is the O/M cost for the lift station. In addition, because of the larger gravity sewer and smaller flows which are characteristic of smaller communities, maintenance requirements with a gravity system (eg. blockages, sewer flushing, etc.) are higher than for a low pressure system.

Therefore, based on this information, the cost assessment for the low systems should be based on construction (capital costs) only.

The capital costs for each of the alternatives is as follows:

Alternative 1 - Gravity Sewer	\$1,250,000
Alternative 2 - Low Pressure Sewer	\$ 775,000

The estimated frontage feet (eg. lot frontage) over which the capital costs can be distributed is 6,830 meters (22,400 ft.). If the above capital costs were debentured through the Municipal Finance Corporation at an interest rate of 14.5%, and a 25 year amortization, the annual payments and resulting annual charge per front foot would be:

	<u>Annual Debenture Cost</u>	<u>Frontage Foot Charge</u>	<u>Frontage Metre Charge</u>
Alternative 1 - Gravity Sewer	\$181,960	\$8.10	\$26.73
Alternative 2 - Low Pressure Sewer	\$112,819	\$5.00	\$16.50

As a result, the cost on a 15.3 metre (50 ft.) wide lot would be \$405.00 per year and \$250.00 per year for the gravity or low pressure system respectively.

If one continued with the pump out type of system, the annual cost would be approximately \$200.00 per year, assuming 5 pump outs per year at \$40.00 each. The major difference between the pump out cost and the annual sewer debenture cost would be that the debenture cost would be fixed while the sewer pumpout cost would rise each year with inflation. If one assumed an inflation rate of 7% each year, then it would take only four years before the pump out cost exceeded \$250.00.

Therefore, the Department will undertake the development of a centralized sewage disposal system on a cost recovery basis for the townsite. Details of the system, including the type and cost, will be reviewed with cottage leaseholders and commercial operators prior to the implementation of the system.

2. Installing a forced air ventilation system and new float level controls in the Smith and Loveless lift stations. The ventilation system shall conform to Alberta Environment Standards and the float controls would replace the existing level control system which is approximately 18 years old. It should also be noted that although the pumps in lift stations 1 and 2 are operating without problems, they are certainly close to the end of their life expectancy.
3. Expanding the existing sewage lagoon to satisfy expected flows from the townsite development, as per Alberta Environment Standards. The addition of an impervious liner will prevent seepage from occurring. It is expected that clay type soils in the area could be used for the construction of the impervious liner. All costs identified in this study have assumed a clay liner available. From an engineering viewpoint, expansion to the southwest would be logical; however, expansion in this direction would impact upon the Elkwater Roping Club's corral as approximately 4.0 hectares (10 acres) would be required. It is also known that this location would impact on an archaeological reserve area.

Expansion to the north would require the acquisition of private land. It is also believed that groundwater tables in the area to the north may be high. It is difficult at this time to determine whether the high groundwater table is natural or due to the leakage from the adjacent lagoon.

With a lagoon system as the method of sewage treatment, a detailed soils analysis is required at all locations to determine the method of construction.

However, implementation of a sewage lagoon may be difficult because of land constraints. Therefore, an alternative to the sewage lagoon would be the construction of a Rotating Biological Contactor (RBC) mechanical plant. The main problem of RBC units is flow equalization. When dealing with a park type setting, where sewage flows have extreme peaks, this problem presents a significant constraint. With Elkwater, there would be at least a minimum sewage flow throughout the year. It would be necessary to construct a $750 \text{ m}^3/\text{day}$ (200,000 US gal. per day) RBC unit. On days where the flow exceeds 750 m^3 , then the excess has to be stored and used during days when the flow is less than 750 m^3 . The existing lagoon cells could be utilized for the excess storage (eg. surge flow storage).

When assessing costs for the lagoon and the RBC alternatives, construction (capital) and annual operation and maintenance costs were identified as follows:

- | | | | | |
|----|---------------|-----------|---|-------------|
| a) | Sewage Lagoon | - capital | - | \$1,050,000 |
| | | - O/M | - | \$26,250 |
| b) | R.B.C. | - capital | - | \$ 954,500 |
| | | - O/M | - | \$48,000 |

It should be noted that O/M costs for an RBC are higher than a sewage lagoon simply because of the mechanical nature of an RBC plant.

When undertaking a present worth analysis based on a cost of money of 5% and a 20 year life cycle, the sewage lagoon was found to have present worth of \$1,370,000, and the RBC a present work of \$1,535,000. At this level of accuracy, both systems can be considered to have the same price.

Therefore, the selection of expanding the existing lagoon as the preferred option is based on the availability of land. It should be noted that both systems require discharge to a stream; however, the RBC unit requires constant discharge, while the lagoon must be emptied once or twice a year.

4. Finally, it was felt that a sewage dump station should be constructed. The purpose of the dump station would be to provide a location for pump out trucks to dispose of their contents. The sewage lagoon would be the preferred location, as opposed to one of the lift stations.

With regards to the ski hill, there appears to be two options for sewage services:

1. Construct a separate sewage lagoon and sewer system, or
2. Utilize a forcemain to pump its sewage to the existing townsite lagoon.

A present worth analysis of the two options indicates that although the capital costs are quite similar, the operation and maintenance cost for the separate lagoon alternative are higher than the forcemain alternative. In addition, finding a location for a sewage lagoon at the ski hill site may be difficult, and Alberta Environment would not like to see another sewage lagoon in the Elkwater Townsite area. Therefore, a forcemain to the existing lagoon would be the most practical option.

Natural Gas and Power

As the concept development plan is implemented, the utility companies should be so notified. With this information, they will be able to provide servicing at a pace equal to that of project construction.

Solid Waste

Solid waste pick up and disposal will have to be planned to accommodate the demand created by the townsite development. It is expected that the present solid waste disposal method (hauling by private contractor to the Medicine Hat landfill) will continue in the future.

4.15.1 Costs

Capital Costs

The capital costs have been detailed in Appendix E and include the following:

1. Water System

- | | |
|--|---------------|
| a) Upgrading in commercial area. | \$ 64,000.00 |
| b) Installation of watermains, valves, and fire hydrants in the permanent and rental housing area. | \$ 51,000.00 |
| c) General Improvements. | \$ 246,000.00 |
| d) Development of wells and reservoirs at ski hill (to be financed by the ski hill). | \$ 100,000.00 |

2. Sewage System¹

- | | |
|--|--------------|
| a) Installation of sewage system in the permanent and rental housing area. | \$ 85,000.00 |
| b) General improvements. | \$ 25,000.00 |

¹Does not include the development of the centralized sewage system, details (cost, type, etc.) of which will be reviewed with leaseholders prior to the implementation of the system.

- c) Sewage lagoon improvements. \$1,228,000.00
- d) Forcemain and pumping station from ski hill to lagoon (to be financed by ski hill). \$ 160,000.00
- 3. Natural Gas and Power
 - a) Expanded natural gas system as required - typical cost for 200 m of gas main. \$ 800.00
 - b) Expand power distribution system as required - typical cost for heavy demand, commercial service. \$ 20,000.00

4.15.2 Operation and Maintenance Costs

The operation and maintenance costs for services and utilities are estimated as follows:

- 1. Existing water and sewer \$ 46,000.00/yr
- 2. Water and sewer improvements \$ 54,000.00/yr
- 3. Solid waste disposal \$ 60,000.00/yr

The operation and maintenance costs for the water and sewer improvements are estimated to be approximately 3% of the capital costs. The operation and maintenance cost of the existing water and sewer system has been estimated.

For the solid waste disposal, the existing cost is approximately \$15,000.00 per year, but will be doubled because of the increase in volume, and then doubled again because of the increase in distance to the regional disposal site.

Cost Sharing Between Users

For the purposes of this report, the users are defined as:

1. Alberta Recreation and Parks
2. Fixed Roof Rental Accommodation and the new Motel Area
3. General Commercial Users
4. Cottagers
5. Group Camps
6. Ski Hill

Alberta Recreation and Parks are responsible for all facilities directly under their jurisdiction, as well as all leased properties, except for those leases which are defined under another user, i.e. cottage leases.

Fixed Roof Rental Accommodation and the new Motel Area are defined as the motel proposed in Block 14 as well as the rental townshouses proposed in Blocks 16 and 18.

General Commercial Users are defined as scattered commercial developments throughout the townsite area (eg. Elkwater Complex, Elkwater Riding Centre, etc.).

Cottagers are users who lease individual lots for personal use.

Group Camps are camps which are managed by clubs or church groups.

Ski Hill is defined as the proposed ski hill development.

Table 5 has been set up to define the methods of cost sharing for the different users. The assumptions on the tables should be noted as follows:

1. The table is simply for the purpose of discussion only.
2. All capital costs will be debentured through the Municipal Finance Corporation at an interest rate of 14.5% and 25 year amortization. The annual debenture costs will then be charged back to the user.
3. All proportioning of costs attributable to the various user groups has been based on the estimated flows from and to each user.
4. Some costs are the sole responsibility of a particular user group, as the improvement is a local improvement for the particular user group only.
5. Operation and maintenance costs have been apportioned based on the average percentage of use between the water system and the sewer system.

The various columns of the table can be defined as follows:

1. Column 1 defines the percentage of the total water demand used by a particular user group.
2. Column 2 defines the percentage of the total sewage production produced by a particular user group.
3. Column 3 is the annual payment required by each user group to cover an estimated \$100,000.00 of operation and maintenance costs.

TABLE 5
COST SHARING FOR USER GROUPS

	% for Future Water Flow Sewage Flow (see note 2)	% of Future Sewage Flow (see note 2)	Operation and Maintenance Water & Sewer	Water System			Sewage System			
				Local			Local			
				Improvements In Commercial Area	Improvements In Permanent and Rental Housing Area	General Improvements	Improvements In Permanent and Rental Housing Area	General Sewer Improvement	Sewage Lagoon Improvement	Solid Waste Disposal
Capital Exp. (\$1984)	N/A	N/A	N/A	64,000.00	51,000.00	246,000.00	85,000.00	25,000.00	1,228,000.00	N/A
Annual Payments for Debentures or Operating Cost (\$1984)	N/A	N/A	100,000.00	9,316.69	7,424.23	35,811.02	12,373.73	3,639.33	178,763.95	60,000.00
Alberta Recreation & Parks	40.9	42.0	41,450.00	N/A	7,424.23	14,646.71	12,373.73	1,908.26	75,080.86	25,200.00
Fixed Roof/Rental Accommodation	27.1	24.3	25,700.00	9,316.69	N/A	9,704.79	N/A	1,104.07	43,439.64	14,580.00
General Commercial	10.4	9.4	9,900.00	N/A	N/A	3,724.35	N/A	427.09	16,803.81	5,640.00
Group Camps	1.5	4.4	2,950.00	N/A	N/A	537.17	N/A	199.91	7,865.61	2,640.00
Cottagers	20.1	18.0	19,050.00	N/A	N/A	7,198.02	N/A	N/A	32,177.51	10,800.00
Sk1 Hill	0	1.9	950.00	N/A	N/A	N/A	N/A	N/A	3,396.52	1,140.00
Total										

Notes: 1. Debenture payment based on Municipal Finance Corporation debenture, 25 year amortization, 14 1/2% interest.

2. Future Water Use 234,500 m³/year - Average Day 642.5 m³

3. Future Sewage Production 254,000 m³/year - Average Day 695.9 m³

4. Column 4 defines the annual debenture payment to cover the capital costs to improved the water system in the motal area of Block 14. As a result, the commercial area would be responsible for this payment.
5. Column 5 indicates the annual debenture payment for local improvements in the permanent and rental housing area on 7th Avenue. Since this development is controlled by Alberta Recreation and Parks, then the annual cost would be the sole responsibility of the Department.
6. Column 6 indicates the annual debenture payments for general improvements in the water system from which all users would benefit. As a result, all users share in the annual cost according to their water use.
7. Column 7 is the first column which discusses sewage improvements. Column 7 identifies the debenture payments for a new sewer system in the permanent staff housing area. As a result, this cost will be the sole responsibility of Alberta Recreation and Parks.
8. Column 8 defines the debenture costs for general sewer improvements to the existing system which are the responsibility of all users except the cottagers. The development of the centralized sewage system is not included in the table, since details regarding the system will first need to be reviewed with the leaseholders in the townsite.
9. Column 9 defines the debenture costs for the sewage lagoon improvements which is the responsibility of all users of the lagoon.

10. Column 10 is the annual payment required by each user group to cover an estimated \$60,000.00 solid waste disposal cost per year.
11. Column 11 is a summary of total annual payments required by each user.

4.14.3 Method of Cost Recovery

Alberta Recreation and Parks will be responsible for undertaking the debenture of all capital costs and would then be responsible for charging back and collecting from the various user groups.

The chargebacks to the individuals in various user groups would have to be established on a fair and assessable basis. The methods of assessment for each user group are suggested as follows:

1. Commercial Users could be assessed on a square metre of floor space basis, or on a water use and metered basis to each building. The meter would have to be placed on the service connection. Different businesss or operations within the building could then be charged by the building owner.
2. Cottagers could be assessed on a side frontage length of lot basis or a common charge per cottage lot. The frontage length basis is common method of assessment in small communities as its fairly assesses lots with larger frontages and therefore higher pipe distribution costs.
3. Group Camps should be charged on an individual basis based on water use. All water use to the individual camps should be metered.

4. The Ski Hill Development should be required to pay for all of its own water system and sewer system connection costs. In addition, it should be charged an annual cost for the sewage lagoon debenture costs based on its sewage discharge. The sewage discharge from the ski hill could be monitored from the proposed sewage lift station to serve the ski hill.
5. Alberta Recreation and Parks would be responsible for all remaining annual costs. Some of these costs would be recovered through a chargeback to renters of the Department's housing units.

5.0 IMPLEMENTATION PROGRAM

5.1 Introduction

Implementation of the concept plan for Elkwater is a multi-year process -- it will not happen overnight. This section identifies and details some specific development activities and their implementation requirements. The development programme assumes that Alberta Recreation and Parks will initially take responsibility for ensuring that adequate sewer, water and other essential services are in place to attract commercial development.

The conceptual development programme outlined should not be considered as inflexible. Indeed, the application of the plan should be flexible to accommodate unforeseen circumstances -- especially the early development of the ski hill and identification of a developer(s) for the commercial area and the resort motel. The intent of this concept plan is to provide a consistent and feasible direction to both public and private sector bodies interested in commercial recreation and related tourism developments in Elkwater. The plan can, and should, be modified based on the actual development that occurs.

In summary, the recommended plan for Elkwater is one which attempts to build on the strengths of the resource base and existing community facilities, remedies weaknesses and identifies new development opportunities. This is to create a competitive and desirable image for Elkwater as a regional tourism destination centre while capitalizing on its geographical location in the Cypress Hills and its proximity to the Trans-Canada Highway.

5.2 Implementation Steps

Implementation of the townsite development plan, involves a series of sequential actions/results. These actions may, in part, be related to the financial resources of the community and Alberta Recreation and Parks, whereas in other instances, they may be related to the market appeal of the community, for example. In any case, this strategy involving long term implementation of the Plan is flexible. Whatever happens, the town should improve its position in the regional marketplace and enhance the attractiveness of Elkwater, on a year-round basis, as a place to visit while in the Cypress Hills.

There are eight key implementation steps that Alberta Recreation and Parks and the community of Elkwater should take to establish Elkwater as a regional tourism destination centre. These are:

A. Step 1: Municipal Engineering Services

Essential to the short and long term growth of the community, as well as to provide investor confidence, it is essential that the existing infrastructure (sewer, water, solid waste, natural gas, and power) be upgraded and expanded throughout the entire townsite to meet the concept plans requirements. Before development in the commercial area of Block 3, the resort motel of Block 14, or the seasonal housing area of Blocks 16 and 18, can occur, the utility services must be in place. However, general improvements to the water and sewer systems and in particular, the construction of the sewage treatment facility should be completed immediately as they are considered deficient under the present conditions.

B. Step 2: Establish Major Winter Destination Attraction

Essential to the economic viability of year-round commercial attractions and fixed-roof accommodation is the establishment of a winter recreation facility that will generate substantial economic benefits to the community. The development of the ski hill will create a positive investment environment for the community. A key planning and design objective of the ski area will be that it will become a tourism generator.

C. Step 3: Prepare Area for Resort Motel and Commercial Development

A number of sequential actions are required to relocate existing services in Block 14 and allow for proposal calls from private developers for the establishment of a motel and additional commercial developments. Initial actions required include the design and development of the Elkwater Community Area to accommodate the relocation of the Alliance Church and Elkwater Community Hall. A site for the permanent staff apartment is required within the residential reserve identified along 7th Avenue, and the AGT trailer will need to be relocated to the administration - maintenance centre. Co-ordination and negotiation with the various groups involved will be an essential requirement of this step in order to gain the full co-operation and assistance of the community.

D. Step 4: Increase Seasonal and Permanent Townsite Population

An early step in the development of Elkwater as a tourism centre will be to increase the accommodation base in the community to support commercial development and to meet the increasing demand created by tourists. Expanding the accommodation base shall essentially be undertaken in four directions: namely, expanding the number of campsites for spring, summer and fall use; disposing of existing vacant cottage lots to the general public for non-permanent single family dwellings; establishment of medium density rental and possibly condominium units; and the development of an area for permanent staff dwellings (single family and multiple units).

It is recognized that a continued increasing demand for campsites exists during much of the peak summer period. Further, expanding the number of rental units for tourist use will attract new markets to the community on a year-round basis. These actions will have a complementary impact for the developers planning to initiate resort motel and commercial development in Step 5. New permanent employee positions will be generated with implementation of the Plan, creating additional demand for housing units.

E. Step 5: Resort Motel and Commercial Development

Essential ingredients to an attractive and interesting tourist destination centre are major tourist accommodation facilities and a shopping area for leisure-sports-curio items, as well as food, beverages and entertainment. Once the land in Block 14 is made available for redevelopment, proposals from the private sector will be invited for a

resort motel development. Redevelopment of 4th Street and 4th Avenue will be required at a later date to meet the projected high volume of vehicular and pedestrian traffic. The relocation of the cottage on Lot 1, Block 16 will be required for the road realignment.

At the same time as the proposal call for a motel in Block 14 a further proposal call for commercial development in Block 3 will also be undertaken.

F. Step 6: Private Medium Density Dwellings

The increased population, year-round use of, and broad recreational opportunities offered by the Elkwater townsite will provide an opportunity for the smaller, higher density form of townhouse accommodation. It is proposed that a medium density townhouse type of development be considered to further reinforce the year-round tourism destination character of Elkwater. Additional private sector capitalization is considered important in reducing servicing costs and increasing economic benefits to the ski hill and the commercial centre.

Tables 6.1-6.4 summarize the recommended tourism development programme showing basic requirements for Elkwater, required phasing, and assignment of responsibility.

TABLE 6.1

PHASE 1: RECOMMENDED DEVELOPMENT SEQUENCE	BASIC REQUIREMENTS AND ACTIONS	SUGGESTED RESPONSIBILITY
1. Upgrade and Expand Community Sewer and Water Systems	- feasibility study to determine future needs - geotechnical investigations, including topographic surveys - detailed design and construction of sewer and water facilities - financial planning and cost recovery	- Alberta Public Works/ Recreation and Parks/ Environment/residential and commercial sectors
2. Development of Ski Hill Area	- upgrade existing facility - solicit participation of entrepreneurs in operating the facility	- Alberta Recreation and Parks
3. Elkwater Community Area	- undertake public discussion, detailed design and construction of community area	- Alberta Recreation and Parks/Elkwater Community Association/ Alliance Church
4. Proposed Expanded Commercial Area, and Resort Motel	- solicit participation of private sector in developing these services - relocate Alliance Church and Community Hall	- Alberta Recreation and Parks/Alliance Church/ Community Association/ AGT
5. Ferguson Hill- Lodgepole Campground	- close north-bound traffic through campgrounds to general public - establish pedestrian walkway up Ferguson Hill	- Alberta Recreation and Parks/Alberta Transportation
6. Elkwater "Handbook of Public Improvements"	- detailed design for street cross-sections - detailed design of sidewalk environment and public open spaces - design "catalogue of parts" for lighting, signage, street/park furniture, theme for public buildings	- Alberta Recreation and Parks
7. West Beaver Creek Campground Expansion	- initiate design for expansion - construct and landscape campground area	- Alberta Recreation and Parks

TABLE 6.2

PHASE 2: RECOMMENDED DEVELOPMENT SEQUENCE	BASIC REQUIREMENTS AND ACTIONS	SUGGESTED RESPONSIBILITY
1. Expand Upper Fire Rock Campground	- environmental analysis - detailed design - construction of campground, including access trails to Horseshoe Canyon Trail	- Alberta Recreation and Parks
2. Enhance Lower Fire Rock Beach - Day Use Areas	- establish quality wet and dry beach - design - landscape open space and picnic areas - provide park furniture and comfort station - changehouse facility	- Alberta Recreation and Parks
3. Subdivision for Permanent Staff Housing	- design and engineer subdivision plan - install primary services (sewer, water, hydro, street) - relocate staff apartment to new location - relocate permanent staff dwelling from townsite entrance to new subdivision	- Alberta Recreation and Parks/Alberta Public Works
4. Sale of Vacant Lots for Cottage Development	- biophysical assessment of vacant lots - release and development of vacant lots for private cottages	- Alberta Recreation and Parks
5. Initiate Medium Density Rental Residential Developments	- advertise for private developer proposals - review impact on environment - initiate marketing for development	- Private Developers
6. Upgrade Public Environment	- prepare detailed landscape - streetscape plan for: - entrance to townsite - main street - public lands (waterfront zone) - co-ordinate activities with private commercial development and community - improve main beach and adjacent open space	- Alberta Recreation and Parks/Commercial Operators and Community

TABLE 6.2 - Continued

PHASE 2: RECOMMENDED DEVELOPMENT SEQUENCE	BASIC REQUIREMENTS AND ACTIONS	SUGGESTED RESPONSIBILITY
7. Develop Riding Centre	- design and construct centre - construct hiking-cycling trails to townsite and other primary trails - market special activities during spring, fall and winter seasons	- Alberta Recreation and Parks/Private Concessionnaire
8. Expand Administration Maintenance Area	- prepare and develop plan to meet ongoing requirements - encourage essential services to locate in administration area	- Alberta Recreation and Parks/Other Public Agencies
9. Elkwater Recreation Centre	- prepare comprehensive design outlining phasing for development - determine operational plans and solicit participation of private entrepreneurs - relocate overflow campground - initiate phasing of development	- Alberta Recreation and Parks/Private Concessions/Elkwater Community Association
10. Develop Ski-Out Trail and Extensive Summer Trail System	- design and construct ski-out to town centre - prepare master interpretive - hiking trail system for townsite (to be used for cross-country skiing)	- Private Developer

TABLE 6.3

PHASE 3: RECOMMENDED DEVELOPMENT SEQUENCE	BASIC REQUIREMENTS AND ACTIONS	SUGGESTED RESPONSIBILITY
1. Upgrade Elkwater Complex	- develop plans to expand Complex according to market requirements - improve external appearance by renovations reflecting the intent of Elkwater's "Handbook of Public Improvements" - complete alterations to parking, vehicular circulation and landscaping initiated in Phase 2	- Alberta Recreation and Parks
2. Expand Permanent Employee Housing	- develop a mix of housing types to meet government and non-government housing requirements - develop internal open space, tot-lot and other neighborhood open space amenities	- Alberta Recreation and Parks/Private Concessionnaire
3. Expand Day Use - Marina Parking Areas	- determine future vehicular parking requirements including tour buses - design and construct parking, including provision of buffer landscaping	- Alberta Recreation and Parks
4. Realign Main Thoroughfare	- relocate cottages - design and reconstruct 6th Avenue and 4th Street	- Alberta Recreation and Parks
5. Develop Medium Density Rental Units	- advertise for private entrepreneurs to develop proposals - obtain public input to Plan - remove service station - construct dwelling units and initiate sale or rental to public	- Private Developer(s)/ Alberta Recreation and Parks/Petro Canada

TABLE 6.4

PHASE 4: RECOMMENDED DEVELOPMENT SEQUENCE	BASIC REQUIREMENTS AND ACTIONS	SUGGESTED RESPONSIBILITY
1. Review Residential Reserve Requirements	- assess future seasonal and permanent staff requirements	- Alberta Recreation and Parks/Private Concessionaire

5.3 Implementation Requirements

Phase 1

The objective in Phase 1 is to concentrate on preparing the townsite for long term development based on year-round visitation to Elkwater. To realize this objective, a number of basic steps are required, including upgrading and expansion of the sewer and water systems, provision of a major winter tourism attraction; and making available land for commercial and motel development. These are absolutely essential requirements needed to create the investment environment to establish a regional tourism destination center.

Phase 2

With the completion of Phase 1, a more comprehensive set of objectives are identified in the planning actions to be initiated in Phase 2. Essential to the economic viability of the community is the development of a critical mass of commercial services, along with adequate numbers and varying types of accommodation units to meet the needs of the different market sectors.

Initial developments in this phase are aimed toward expanding the recreation population to support important commercial services, as well as the ski hill. Development of the commercial area and the motel complex at this time will have multiple economic benefits and will have a positive marketing impact for the community. One of the implications created by this expansion will be a continuing need for additional seasonal and permanent employee housing.

To create the necessary visual marketing image for Elkwater, upgrading of the appearance of the public environment will be initiated -- a programme of open space landscape improvements and streetscape amenities is essential to create the necessary resort image. A range of summer and shoulder season activities - facilities will be put in place to increase the lengths of stay of the visitor and create opportunities for package vacations. Completion of the ski hill development shall be undertaken during Phase 2. During these early years of development, it will be important to reduce the risk of overdevelopment, minimal cash flow and operating losses. Each development must complement other existing services and attractions and generally improve the environment for other actions planned in Phase 3.

A further objective in this phase will be to market Elkwater more aggressively during all seasons. The ultimate goal in Phase 2 is to establish a stronger market image and plant for Elkwater. Tourists should have a positive "image of Elkwater" in their minds and want to make a point of returning, or at least mentioning Elkwater and the Cypress Hill to others.

Phase 3

In this phase, several developments are initiated to improve the provision of services for tourists, to increase private sector expenditure in the form of fixed-roof accommodation and to add additional employee housing. Phases 1 and 2 will have created the critical mass required for such development to occur. Elkwater will increasingly look like an attractive opportunity for potential tourism developers.

It is anticipated that during this period, major yet-to-be established spectator and participatory events will be developed during the spring, fall and winter seasons that will become tourism generators. Support should be given to organizations responsible for the planning and operation of these events.

Such events may require, on occasions, significant land areas in the town and have a significant influence on traffic, occupancy and economic benefits to the community.

Phase 4

This Phase will include continued enhancement of existing events-festivals and sporting events, expansion - upgrading of individual commercial services and attractions to meet the changing leisure market and additional accommodation.

5.4 Changing Elkwater's Tourism Image

The new image of Elkwater townsite should be vigorously pursued with a marketing strategy by Alberta Recreation and Parks, intended to inform and sell the opportunities and setting offered by the redeveloped, expanded and upgraded townsite. While it is true that such redevelopment will not occur instantly, and the experience and image of the townsite will become richer as time goes by, it is crucial to concentrate on those activities and actions during early development that are of low cost and high impact to tangibly demonstrate commitments and concretely establish a new perception of the townsite among residents and tourists alike.

6.0 LAND USE REGULATIONS

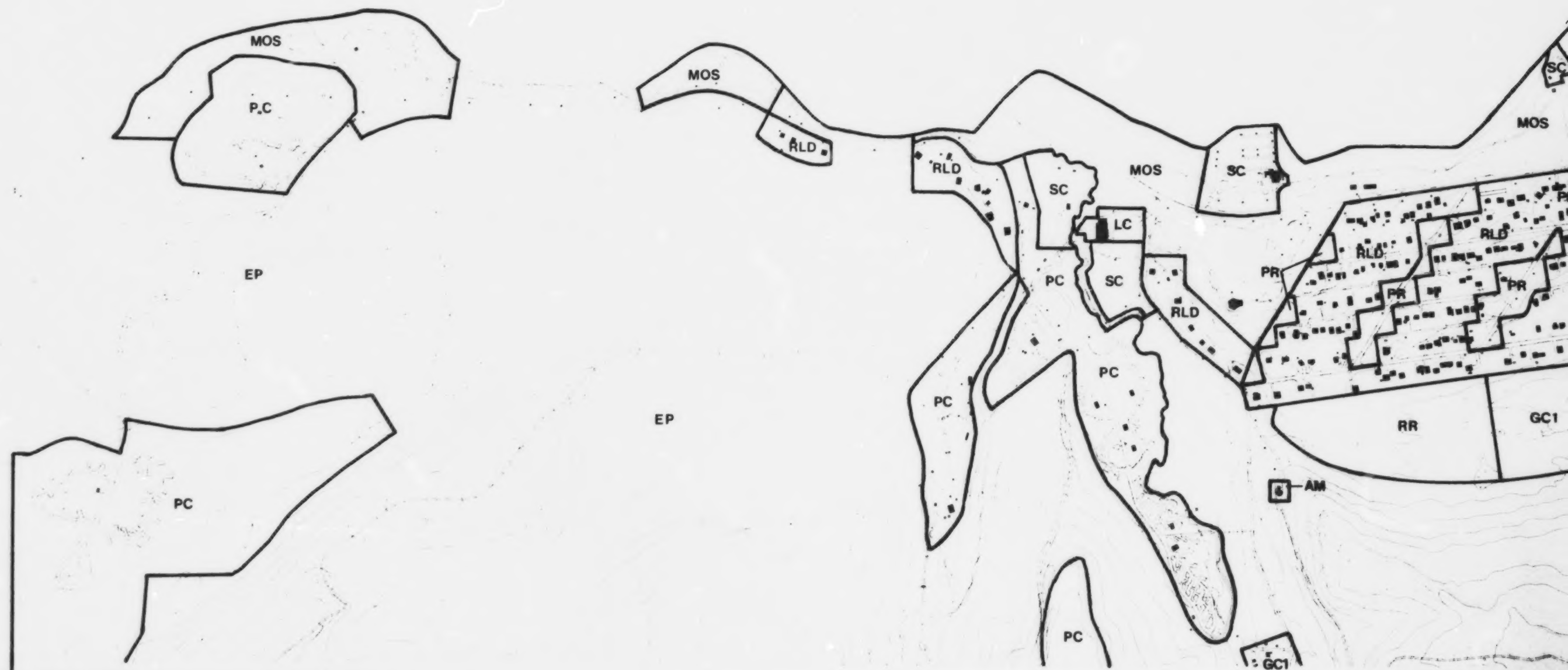
6.1 Introduction

This section establishes the detailed development and land protection policies for each of the land use categories identified on Map #5 in order for Elkwater to develop into a regional tourism destination centre. The plan states that certain commercial accommodation, with other summer and winter recreation and interpretive uses, will be compatible with existing land uses at Elkwater and that some additional seasonal and permanent residential development and campground growth can occur. These policies and regulations are promulgated in order that appropriate land uses, including their visual character, may occur within the context of a regional tourism destination community.

The policies and regulations specify the allowed land use activities for Elkwater to which public and private property must conform. The objectives of these policies/regulations are to:

1. encourage the development of land uses which Alberta Recreation and Parks determines to be compatible with the objectives of Cypress Hills Provincial Park and Elkwater townsite; and
2. promote the protection and investment within private and public properties through appropriately designated land uses, transportation system, acreage, frontage, density, height or any other provision.

ELKWATER LAKE



**PROPOSED
FUTURE LAND USE**

**ELKWATER TOWNSITE
DEVELOPMENT PLAN**

**IN
CYPRESS HILLS PROVINCIAL PARK**

SCALE: Approx 1 cm. = 75 m.

0 60 120 240
metres

Map 5

RESIDENTIAL

RLD Residential Low Density
RMD1 Medium Residential Density (Private)
RMD2 Medium Residential Density (Public)
RR Residential Reserve

COMMERCIAL

RC Resort Commercial
SC Special Commercial
LC Limited Commercial

PUBLIC CAMPING AND GROUP CAMPING

PC Public Campground
GC1 Overnight Group Camp - Institutional
GC2 Overnight Group Camp - Public

PARKS AND OPEN SPACE

MOS Major Open Space
PR Park Reserve
CP Community Reserve
EP Environmental Reserve

ADMINISTRATION AND MAINTENANCE

AM Administration and Maintenance



Alberta

RECREATION AND PARKS
Design and Implementation Division

General Provision

Existing Uses

Nothing in this plan shall affect the continuance of uses legally established in the plan but the Minister, in co-operation with owners, shall attempt to reduce the number of non-conforming uses wherever and whenever possible.

Non-Conforming Uses

As a general rule, uses that do not conform with the policies of this plan should, in the long run, cease to exist so that the land affected may revert to a use that conforms with the intent of this plan. In special instances, however, it may be desirable to permit the extension of non-conforming use in order to avoid unnecessary hardship. These uses may be permitted provided that:

- a) their designation will not permit any change of use or performance standard that will aggravate any situation detrimental to adjacent and complying uses;
- b) the non-conforming use does not constitute a danger to surrounding uses and persons by virtue of their hazardous nature or the traffic they generate; and
- c) the non-conforming use does not interfere with the continued development of adjacent conforming uses or the enjoyment of adjacent areas.

Where an existing use is non-conforming and interferes with the desirable development or enjoyment of the adjacent areas, it shall not be so designated. Furthermore, Alberta Recreation and Parks will seek the means to eliminate the use and may terminate lease agreements or assist in whatever way possible in the relocation of the use.

Physically Unsuitable Areas

No development will be permitted in areas which are vulnerable to flooding and/or erosion, or in other areas where by reason of their rocky, low lying, marshy or unstable nature, construction costs would be prohibitive or place an unnecessary financial burden on the government. Where a proposal is received in such areas, the government shall consider, among other things:

- a) the existing environmental and/or physical hazards and the unavoidable adverse impacts to the landscape; and
- b) the proposed methods by which these hazards may be managed in a manner consistent with accepted engineering techniques and resource management practices.

Municipal Services

A level of servicing for the townsite shall be established where the seasonal cottages, permanent residences, and public and commercial facilities are serviced by a system of water distribution (both domestic and fire) and sanitary sewage collection. No person shall establish, alter, enlarge, or extend a waste management system or a waste disposal site, unless a professional certificate of approval has been issued. Dialogue should occur between Alberta Recreation and Parks and local government authorities on the development and operation of municipal services for the various components.

Economic Consideration

Alberta Recreation and Parks shall have in mind the financial status of the community and commercial operators alike, in the evaluation of development and improvement proposals. The government shall endeavour to ensure a favourable climate for the economic development of the townsite through the participation of private sector investment. Encouragement shall be given to the expansion and diversification of commercial and public recreation - tourism services and attractions in order to maximize the recreation potential on a four-season basis and to provide increased employment and economic stimulus to the surrounding area. The rate and type of growth, while conditioned by market and tourism trends, shall be determined by financial capabilities, municipal services and environmentally suitable lands for development purposes.

Transportation Network

Dialogue shall occur between Alberta Recreation and Parks and local government authorities regarding the planning, design and operation of a fully co-ordinated system of arterial roads, local streets, and pedestrian, horseback and bicycle trails. Prime consideration shall be given to pedestrian movement, especially in and between the waterfront areas, the commercial area, campgrounds and residential areas. It is the intent that local subdivision roads shall be restricted to residents and that through traffic be discouraged.

Adequate parking facilities shall be provided with particular attention given to street parking problems, safety considerations, and visual impacts in the waterfront area. Additional parking should be provided in the future to alleviate on-street parking problems in the cottage area and adjacent to open space areas through:

- a) expanded public parking areas (vehicular and tour bus); and
- b) requiring all new development in the commercial areas to provide sufficient parking to accommodate the proposed use.

Community Form and Quality

Elkwater is intended to be a low rise, low density, regional destination tourism service centre with a mix of residential, commercial support services and recreational attractions. Building forms should have a unique and common character, creating an interesting and strong image for the townsite. Alberta Recreation and Parks shall adopt specific policies regarding the form of new developments.

The townsite will become a community with quality environment for recreation users throughout the year. Accordingly, and in recognition of building height, coverage and form, the land form and vegetation of the Cypress Hills are essential elements in the establishment of the overall physical character of Elkwater. Through regulation, Alberta Recreation and Parks, among other matters, shall limit the height and mass of buildings and implement development standards in accordance with the functions and intended character of the land use areas of Elkwater.

Development Agreements

Development control shall be the responsibility of Alberta Recreation and Parks. Therefore, development agreements must adhere with or be negotiated to the satisfaction of the Department.

Land Use Policies

General

This section establishes the detailed development policies for each of the land use categories identified on Map No. 5. The drawing indicates the various land use categories and their distribution in the townsite. Within the Elkwater townsite, all lands shall be divided into five land use categories, namely residential, commercial, public camping and group camps, parks and open space, and administration and maintenance. The area allocated to each land use category is identified in Table 7.

The development of a coherent, intelligible and well-designed image for the townsite requires action at a number of levels. Presented in the following sections are suggestions for regulatory control of private development within the Elkwater townsite so that what is built will be consistent with the proposed land uses and contribute to the intended physical character of the townsite. These guidelines, however, can only go part way toward establishing a distinctive physical quality for the townsite. The other part of the effort is the detailed design of the public environment.

The public environment is composed of those lands directly controlled by Alberta Recreation and Parks, the street rights-of-way, the townsite open spaces and public buildings. The careful design of these elements will not only provide continuous high quality public areas to the townsite, but will provide the "theme" that lends its distinctive touch to the overall perception of the townsite in a way that development -- forever discontinuous and changing -- can never provide. Design guidelines and regulations, furthermore, now find a coherent foundation from which to proceed namely the protection and enhancement of the public environment, and cannot be interpreted as arbitrary.

TABLE 7

ELKWATER - PROPOSED FUTURE LAND USE

Categories - Zoning		Area (ha)	% of Total
<u>Residential</u>			
RLD	Residential Low Density	27.07	5.24
RMD1	Medium Residential Density (Private)	3.19	0.61
RMD2	Medium Residential Density (Public)	1.42	0.27
RR	Residential Reserve	11.53	2.24
<u>Commercial</u>			
RC1	Resort Commercial	3.32	0.64
SC	Special Commercial	55.60	10.74
LC	Limited Commercial	.69	0.13
<u>Public Camping and Group Camps</u>			
PC	Public Campground	45.52	8.80
GC1	Overnight Group Camp - Institutional	6.15	1.19
GC2	Overnight Group Camp - Public	5.87	1.13
<u>Parks and Open Space</u>			
MOS	Major Open Space	33.14	6.41
PR	Park Reserve	4.49	0.87
CP	Community Park	2.47	0.48
EP	Environmental Reserve	278.50	59.89
<u>Administration and Maintenance</u>			
AM	Administration and Maintenance	7.04	1.35
			100.00
TOTAL TOWNSITE AREA		486.00	

The following policies and regulations have been written with this approach to the issue of development control. There will be assumptions made about the expected quality of the private and public environment and policies developed consistent with these assumptions.

It is intended that development within Elkwater will take place in accordance with the land use pattern shown on Map No. 5. Policies governing the use of lands within the various land use categories are outlined in the following subsections.

6.2 Residential Low Density (RLD)

Intent

New, low density, seasonal and permanent residential development should continue and consist of single family detached dwellings where each individual unit has direct frontage and access to a public street. Development shall occur through infilling of vacant lots and other areas within the built-up sections of the townsite. Infilling or redevelopment of built-up areas shall proceed only if municipal engineering services are deemed adequate. It is recognized that home occupation "cottage industries" may occur in this land use district, provided that they are not disruptive to the surrounding residential properties.¹

¹Sale of cottage industry products would be encouraged to occur at businesses with a commercial land use zoning designation.

New cottages and permanent dwellings should be compatible with existing dwellings and not be overpowering. The scale of development should not be equivalent to normal urban standards, but should be consistent with a minimal intrusion into an otherwise natural setting. Ample space for preserving tree cover in the front and side yards is desirable in order to keep the wooded character of the townsite.

When considering application for cottage development on previously unoccupied lots, in addition to the above, regard shall be given to the following:

- a) the physical suitability of the land for such proposed use;
- b) assurance that the development shall not increase expenditure disproportionately for internal sewer and water services and internal access roads; and
- c) the compatibility of the proposed development with uses in adjoining areas and the effects of such development on the surrounding area.

Public Systems Assumptions

With the proposed delineation of the main commercial street from the remaining residential streets, a rural cross-section can be maintained in the cottage district. The road surface may be paved, but curbs and gutters are not necessary, and vegetation should be allowed to abut the roadside without any clearing of the right-of-way, aside from utilities requirements. Parking along the street should not be encouraged, but should occur on-site. Maximum speeds should be tightly controlled, with reduced limits near playgrounds.

Services such as street lighting should be low-key. Lighting standards should be lower than in urban residential streets, and each individual street lamp should be closer to human scale and less glaring in intensity. Street signage should reflect the wooded setting. Changing from street numbers to street names may be a positive contribution.

All new construction should be designed to accommodate connection to a future sanitary sewer service, with mandatory connection to be made upon its completion. All leases should, in order to be renewed, include a requirement to connect the household to the sanitary service. Likewise, any upgrading of existing properties under an existing lease should also include mandatory connection.

Land Use and Intensity

The minimum lot sizes for this residential category shall be 657 square metres (7072 sq. ft.) with a minimum lot frontage of 15 metres (50 ft.) reflecting existing subdivision development.

All cottages should have a minimum floor area of 60 square metres (646 sq. ft.). Site development should not encompass more than 30% of the total lot area up to a maximum of 140 square metres (1,506 sq. ft.) and should include only the following improvements: one cottage, one garage, and one utility shed. A minimum standard size of development is desirable in order to maintain the basic quality of the townsite. Limits on development are required to maintain the rural nature of the setting.

Overcrowding of a cottage lot should also be discouraged in order to maintain a more rural density. Additional guidelines and conditions will be developed by the Department for ancillary services and improvements.

All proposed cottages must be staked out and approval of the location obtained from the Department prior to any clearing. No subdivision or splitting of lots is allowed.

The areas designated as Residential Low Density are already developed, to a large extent, but include areas which could accommodate additional, similar development from a general land use point of view. This interpretation, however, does not preclude the fact that a major consideration for any development taking place must be the ability of the town to accommodate waste disposal, water and land-oriented recreational activity from such development, and the suitability of the terrain for development.

Cottage Conversion

It is recognized by this plan that, in recent years, more and more cottages are being used for periods longer than the normal summer months, and at times it has proven difficult to overcome the problems of year-round occupancy, that have often resulted. This situation is likely to continue at an accelerated rate once improved winter and shoulder season recreation facilities and services are established.

While attempting to ensure that residential low density areas be limited to seasonal recreation and permanent employee use, it is known that in some areas near permanent use exists and that in such areas year-round occupancy may be sought. Permanent occupancy, however, within the townsite, is not permitted under the Provincial Parks Act.

6.3 RMD1 - Residential Medium Density - Private

Intent

Two areas, along 4th Street and the present service station site located between 6th and 7th Avenue, are seen as an opportunity to provide higher density residential accommodation developed commercially for tourist rental. This development will consist largely of townhouses and will include both private and public open space.

This residential area should be characterized by an orientation for development that enhances the sense of being in the main part of town and focuses attention on the street. Development should be of a scale, character and disposition that will enhance these objectives adding interest and safety to the public environment.

Achieving this image is dependent upon the existence of a reasonable public environment and responsible private development.

Public Systems Assumption

Provision of wide sidewalks for local pedestrian activities shall occur in this area. The street itself is a main thoroughfare with parking lanes permitted on either side. The street corners are particularly important because they provide large amounts of space for pedestrian activity. The character of landscape treatment should reflect the natural setting of Elkwater. Development should be suitably screened from the lake.

Land Use and Intensity

The proposed land use and intensity is intended to ensure that the quality of the public environment is protected and that the overall image of the townsite is reinforced.

1. The density of development in this area shall average 35 development units/hectare (14 development units/acre).
2. Land uses are restricted to that of a residential nature in the form of townhouses, maisonettes, multiple dwelling units of a type consistent with the requirements of these guidelines and of a tenure approved by the Department.
3. The intensity of building is limited in keeping with the low scale character of the townsite. The Floor Area Ratio shall not exceed 0.8.
4. The building height shall not exceed two (2) storeys or six (6) metres (20 ft) at any eaveline.

6.4 RMD2 - Residential Medium Density - Public

Intent

In an area located south-west of the curling club, it is the intent of the Plan to develop a seasonal staff accommodation area, utilizing mobile homes, to house government and private sector employees working in the townsite.

For the purpose of this Plan, mobile homes are considered to be transportable factory-built, multiple resident dwelling units, suitable for occupancy, designed to be transported on their own wheels and chassis and arriving at the site ready for occupancy apart from incidental operations such as location on foundation supports and connection to service utilities. In addition, accessory uses such as open space and recreation amenities shall be provided for residents of the seasonal staff accommodation area.

Public System Assumptions

The seasonal staff accommodation area shall be laid out by Alberta Recreation and Parks. Availability and adequacy of services such as utilities, roads, and open space-recreation facilities shall be considered. It is proposed that this area include a rural cross-section for the streets and that the streets should have a paved or compacted granular surface suitable for use all seasons of the year. Curbs and gutters are not considered necessary or desirable. Maximum vehicle speed should be tightly controlled due to the restricted road systems and multiple use of roads for pedestrian and vehicular traffic.

Services such as street lighting should be low-key in keeping with the overall intent for the cottage community. A central open space area is required for relaxation and games in order to develop a strong neighborhood atmosphere in the trailer court.

Land Use Intensity

As guidelines, the seasonal staff accommodation area shall not exceed 15 units per hectare (6 units/acre) or 12 hectares (30 acres) in size and arranged in planned groups of clusters. It should be designed with facilities and lot layouts to accommodate multiple resident dwelling units. The site for each trailer should be harmoniously and efficiently organized in relation to topography, and the shape, size and position of structures and common facilities. Full attention should be paid to use, appearance, and livability. The mobile home unit should be fitted to the terrain with a minimum disturbance of the land. Existing trees, rock formations, and other natural site features should be preserved to the extent practical. Favourable views or outlooks should be emphasized by the Plan. It is recommended that the placement of individual units also be varied to avoid monotony.

Each mobile home should be located on the lot in such a manner that the unit appears to be set at ground level with adequate provision for drainage and skirting around the perimeter of a mobile home.

On-Site Requirements

1. There should be one off-street parking space per two residents.
2. Provision shall be made for adequate landscaping and buffering, the standards for which shall be set by the Department.
3. Not less than 10% of the gross site area shall be divested to recreation facilities - open space.
4. There should be a screened storage yard for various recreational equipment. No parking of boats, etc. shall be allowed except in such a yard.

6.5 Residential Reserve (RR)

Intent

In recognition of the future population growth of the townsite and the requirements for seasonal and permanent staff housing, certain lands suitable for future residential housing development have been identified. It is anticipated that development in these areas will be primarily low and medium density residential with the policies outlined in this Plan. The distribution of new housing in terms of the density type shall be determined according to the demand for employee housing and staging of development. Until such time as a residential development plan has been submitted to and approved by the Department, these lands shall be managed according to the policies set forward in Section 6.15.

6.6 Resort Commercial (RC1)

Intent

This designation will include resort motel development, and recreation facilities for the resort patrons. It may also include certain associated commercial accessories as part of the development.

Resort commercial uses shall be located close to the waterfront and in such a manner that the existing and future transportation network will provide for adequate movement of vehicular traffic. In the planning and development of this area, consideration shall be given to the following:

- a) adequate public access to the water;
- b) adequate automobile parking areas shall be established and access points to the parking areas shall be designated in such a manner that they will minimize the danger to vehicular or pedestrian traffic;
- c) such development shall be compatible with adjacent uses and, where necessary, adequate screening shall be provided between resort and other land uses;
- d) proposals for resort commercial development shall be accompanied by an engineering report indicating that there is available an adequate supply of potable water and municipal services for such development; and
- e) proposals for resort commercial development shall be accompanied by a financial report outlining the financial arrangements and economic viability of the development.

Public Systems Assumptions

The resort commercial area is centred around what will eventually be the main street entering the townsite from the east. The carriage way, although wide, will allow for sidewalks of a reasonable dimension on either side. The sidewalk space will be augmented by a minimal setback to aid pedestrian circulation. The lighting will reflect the greater pedestrian activity of this zone and be geared to it in dimension and frequency. The corners at street intersections shall be considered unique opportunities to establish greater pedestrian identity for the public environment by continuing sidewalk paving materials through the intersection. Landscape planting, lighting and signage are assumed to be developed in a coherent character with the streetscape. Adequate buffer planting shall be provided between the resort area and any adjacent residential area. Such buffer planting may include provisions for grass strips and appropriate planting of trees and shrubs.

Land Use and Intensity

The resort commercial area will contain the most intensively developed land in Elkwater. The character of this area will allow higher site coverage with development occupying the areas of land adjacent to the street.

1. Uses will include a resort motel along with associated retail space.
2. The maximum allowable Floor Area Ratio will be one (1.0) for the site area.
3. The maximum building height shall be three (3) storeys or nine (9) metres (30 ft) to any eaveline.

6.7 Special Commercial (SC)

Intent

Throughout the townsite, a number of single-purpose commercial developments occur, that primarily serve the tourist on a seasonal basis. For the purposes of this plan, these uses shall include the downhill ski area, trail riding centre, marina and other commercially operated recreation areas.

The plan, through this designation, shall attempt to encourage the development of specialized commercial recreation services and conveniences for tourists visiting Elkwater. Certain development has occurred to date in the form of a marina, a boat-bicycle rental concession and a downhill ski area. It is the intention of this plan to permit recreation oriented commercial facilities to locate in those designated areas where they complement existing uses and where the economic viability of the development area can be clearly demonstrated.

Public Systems Assumptions

A wide variety of uses are possible for this district with corresponding differences in the public infrastructure accorded to their uses. The public systems provided (roadways, open areas, etc.) should form a continuous system with those presently existing and outlined in this plan and should be consistent in the character and design of its components (lighting, signage, etc.) with that of the townsite. The specific design of proposed public infrastructure shall be reviewed and approved by the Department.

6.8 Limited Commercial (LC)

Intent

Limited commercial uses, for the purposes of this plan, shall include a local shopping centre that include a range of convenience goods, retail items, eating establishments and business support services. This designation would provide for the establishment of a limited commercial node in Block 3, adjacent to the existing Elkwater Complex.

Public Systems Assumptions

Development included within this land use designation shall be centrally located to meet the needs of the cottager, camper and day user. Access shall be provided from the main arterial street system and sidewalk space shall be provided from the primary use areas. A high degree of landscape treatment, signage and lighting shall be provided consistent in theme with the overall character of the waterfront streetscape.

Land Use Intensity

The character of the site shall allow for modest expansion to allow for greater site coverage. Additional uses shall not be encouraged.

6.9 Public Campground (PC)

Intent

The intent of this Plan is to establish medium and high density auto access camping to meet the needs of short term (less than 2 weeks duration) visitors to Elkwater. In addition, the plan recognizes the limited demand for walk-in camp sites, although this use is permitted only in identified areas within this land use designation.

Public Environment Assumptions

The development of public camping sites shall include essential central public amenities including standard design washrooms, and public recreation facilities to meet the needs of a broad cross-section of the destination and pass-through travel markets. Provision of central public services shall generally be of a standard equivalent to existing campground development.

Additional amenities may include open space areas with a variety of playground equipment, and hiking-cycling trails connecting with other commercial and recreation activity nodes. Commercially oriented facilities and waterslides, etc., shall not be included within this designation. Future camping developments will attempt to be within walking distance of the waterfront.

Land Use and Intensity

Areas identified for public campgrounds shall be restricted to camping activities and vehicular and pedestrian traffic shall be limited to campers and visitors. The density of future

developments shall respect site conditions and the character of adjacent developments. A maximum density of 25 units/ha (10 units/acre) shall be considered appropriate in Beaver Creek, whereas in other, more natural areas, it is the intent that the density not exceed 12 units/ha (5 units/acre).

6.10 Group Camp - Institutional (GCI)

Intent

It shall be the policy of the plan to encourage the upgrading and increased use on a year round basis, of existing overnight group camps in Elkwater. It is not the intent of the plan, however, to permit further development of new group camps. Camp operators shall be encouraged to develop master plans and to allow their properties to be used for a variety of programmes by a variety of user groups, e.g., such as environmental education during low periods of use.

6.11 Group Camp - Public (GCP)

Intent

The Plan encourages the use and expansion of public group use areas for overnight camping on a year round basis.

6.12 Major Open Space (MOS)

Intent

Opportunities for waterfront outdoor recreation amid the natural beauty of the Cypress Hills landscape are important ingredients contributing to the attractiveness of Elkwater and the quality of the recreation enjoyed by tourists in the park.

The development and enhancement of this area will play an important role in meeting the recreation needs of the local population and tourists visiting Elkwater.

Within the major open space category, the predominant uses of land shall be those which provide for:

- a) all forms of outdoor recreation including parks, informal playfields and beach and swimming areas;
- b) enjoyment of an area developed for intensive recreation purposes as well as the preservation of certain distinctive natural features; and
- c) the enhancement of the townsite setting through the development and maintenance of an extensive urban green space system.

Public Systems Assumptions

A number of assumptions have been made regarding the development and maintenance of this designation. Major considerations regarding the enjoyment of this area and potential impact on other adjacent properties are as follows:

- a) the provision of major open space including the development and maintenance of all lands and facilities shall be the responsibility of Alberta Recreation and Parks;
- b) the major open space system should be designed and implemented to attract both day visitors and extended stay tourists to the town;

- c) opportunities for access to cottage, camping and commercial areas shall be provided via bicycling, hiking and vehicular road systems; and
- d) a high standard of landscape, signage, park furniture, and street lighting shall occur throughout.

Activities considered appropriate in this area include, but are not limited to: swimming, nature interpretation, picnicking, informal games activities, hiking-cycling and photography.

The use and enjoyment of Elkwater will, in part, be due to the perceived image of the public domain along the waterfront. Therefore, the design, implementation and maintenance of all lands and facilities should be undertaken in a manner distinctive to Elkwater. A comprehensive architectural treatment for public structures is required such that a high degree of coherence and consistency can be achieved between public architecture and the remainder of the public environment. Throughout this land use designation, a design and implementation strategy is required that gives priority to the high impact but low cost improvements.

Land Use and Intensity

A continuous system of intensively developed parkland shall be developed along the waterfront, where possible. The intensity of use shall vary from intensively used waterfront areas for swimming to more passive areas for hiking, informal games and nature interpretation. Physical facilities appropriate in this designation and necessary for its use and enjoyment include, but are not limited to, maintained swimming beaches, trails, streets, parking lots, comfort stations, park furniture, picnic

facilities, amphitheatre and group use areas. Facilities such as swimming pools, tennis courts, and mini-golf courses are considered inappropriate in this designation because they would occupy too large an area and would cause undue encroachment on other recreational pursuits. All of these facilities are proposed elsewhere in the townsite.

6.13 Park Reserve (PR)

Intent

Elkwater shall retain natural, undeveloped public areas within the existing cottage subdivision for open space purposes. These parklands shall be intended solely for buffering, scenic amenity and conservation. The public reserve designation may include the following:

- a) lands containing significant landscape and ecological natural features, or environmentally sensitive areas; and
- b) pedestrian walkways and links.

Public System Assumptions

As a general standard, all living treed vegetation in the park reserve designation shall be given high priority for preservation. These woodlots or natural landscapes are required for visual relief, for outdoor education opportunities and as a landscape diversity in a park townsite environment. Removal of any vegetation within these areas shall be undertaken at the direction of the Department. Further, mowing of undesirable vegetation may take place where the reserve is used by residents as a trail-head, rest-stop or some other limited recreation use.

6.14 Community Park (CP)

Intent

The community park designation is to provide lands and facilities to serve primarily the needs of the seasonal and permanent residents of the community and immediate surrounding area. In the past, community facilities have been scattered at separate sites providing separate functions. This designation is intended to provide a central location for many of the existing services and to provide additional space as a result of an expanded resident population. With the growth of the population, the focus of community recreation activities may shift from primarily special occasions on a weekly or bi-weekly basis to such activities on a daily basis. Therefore, the community park should function as the visual and focal point of the residents.

Public Systems Assumptions

Within the proposed designation, adequate parking shall be provided and may be paved, but curbs and gutters are not necessary. Parking along the street, except adjacent to the curling club, will not be encouraged.

Services such as lighting should be low key and should reflect a town-wide design. A pedestrian circulation system on the site would reduce conflict with vehicular traffic.

Land Use and Intensity

Future development shall be designed to serve a seasonal peak community population of approximately 2,000 people. The community centre should serve as the focus for programmes organized by volunteer efforts or the Elkwater Recreation

Association. Joint use of community facilities should be maximized in order to allow for the widest possible range of community activities and programmes. The primary facilities to be included are: curling club, community hall, church, open space play area (including outdoor hockey rink), ball field, picnic area, parking area and playground. Design of this area shall be approved by the Department and be undertaken in such a manner as to minimize tree clearing and upgrading.

6.15 Environmental Reserve (ER)

Intent

The environmental reserve areas within Elkwater include tracts of naturally occurring vegetation, hazard lands and lands with limited development potential. Recreation - resource management practices within this designation shall be undertaken in order to afford a broad range and variety of outdoor recreation activities in keeping with the natural character of the landscape. Further, it is the intent of this designation to provide forage, cover and sanctuary for wildlife and the opportunity for wildlife management demonstration and education.

Public Systems Assumptions

Lands located within this designation shall be retained in their natural state as they would be easily disturbed by heavy use. In other areas, the designation is based on scenic values, sensitivity to human intrusion, topography, etc. Man-made improvements will be limited to facilities needed for public enjoyment of the natural environment, mainly in the form of hiking, equestrian, cross-country, and bicycle trails. An

occasional picnic table or two may be located at a bike-hiking trail rest stop, but further development is not appropriate. Bush clearing, mowing of natural vegetation and similar activities will be prohibited unless a demonstrated need exists to maintain trails and observation points. Trails may be temporarily closed to permit recovery of overused or damaged areas.

6.16 Administration and Maintenance (AM)

Intent

It is the intent of the plan and this designation to improve and expand the existing administration and maintenance area. Access to the many activity nodes in the townsite is essential and the present location is favourable. For the purposes of this Plan, an enlarged area has been designated for future essential services such as an R.C.M.P. office, Alberta Transportation facilities, Alberta Government Telephones building, ambulance - firehall, as well as additional maintenance buildings for park vehicles and equipment.

It is intended that the existing yard be redesigned to better accommodate a limited amount of traffic from the general public.

Public Systems Assumptions

This area is itself part of the public environment and will, in the quality of its execution, set the acceptable standard for those efforts undertaken by private individuals and groups in the townsite. The buildings and site development (setting) should, therefore, strive for the highest quality design. In addition, the retrofit of existing facilities should also serve

as an example of the desired overall quality for such efforts in the town, and every effort should be made to ensure that renovations are well designed and well executed. These public buildings will then not only form a continuous and well integrated part of the overall public environment, but will solidify the image and character of the Elkwater townsite.

Land Use Intensity

Although part of the public environment, land use for this area shall be limited to those administrative and maintenance functions required by Alberta Recreation and Parks for the continued operation and maintenance of the park. The intensity of such development shall not exceed a floor area ratio of .35.

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7.0 APPENDICES

APPENDIX A

PERFORMANCE CRITERIA FOR LAND USE DEVELOPMENT

1. Residential Low Density (RLD)

a. Building Edge

- * All cottagers should be set back a minimum of six (6) metres (20 feet) from the property line. Similarly, the minimum rear yard setback shall be three (3) metres (10 feet) from the rear lot line.
- * Maximum height of cottage development should be one and one-half storeys or two-storeys, if approved by the Department. The main floor should not be any more than five risers (vertical steps) above grade on average. Excavation should be kept to a minimum. Maximum height for accessory buildings should not be greater than four (4) metres (12 feet).
- * Garbage containers may be located within the front yard area, but must be enclosed on three sides with a well-constructed enclosure approved by the Department.
- * No private signs, other than a sign at the entrance to the lot giving the name and address of the resident, should be posted. No sign may be attached to a tree or other natural feature.

b) On-Site Requirements

- * A minimum side yard of one and one-half metres (5 feet) should be maintained. The criteria for limiting distance between adjacent cottages should be ample space for a mature row of trees to grow.

- * Buildings and structures must be kept well painted and in a state of good repair. The use of natural materials should be encouraged with exterior colours complementary to the surrounding environment.
- * Chimneys and fireplaces must be of approved construction, and be fitted with chimney caps of a spark suppressing type.
- * The accumulation and on-site storage of building materials and other apparatus/debris/etc. should be subject to the approval of the Department and, in such instances, will only be approved temporarily.
- * Only dead or dying trees may be removed without prior consent of the Department. Where natural vegetation is not present, the land owner shall be encouraged to provide landscaping on the site to enhance the cottage and protect the natural landscape.

2. Residential Medium Density (RMD)

a) Building Edge

The use and enjoyment of public space and the perceived image of the townsite is fundamentally affected by the character of the building edge immediately adjacent to it.

- * The street face of the building should provide activity, variety and interest, ensure safety, define the extent of public areas, and establish the street as a focus for activity. The building shall be located not less than five (5) metres (16.5 ft.) and no greater than ten (10) metres (33 ft.) from the property line for at least forty-five percent (45%) of the site frontage.

- * The building should be as continuous as possible, minimizing interruptions by vehicular and service access points.
- * The building edge should identify individual units as much as possible, avoiding large anonymously-windowed blocks of buildings, and lowering the scale of development to that consistent with the intended character of the townsite.
- * Dwellings close to or at grade should overlook and have their "front door" on the street or internal court yard, and be provided with private outdoor spaces suitably separated from the public domain by planting, fencing, a change in level or similar method, or combination of methods to the satisfaction of the controlling body.

b) On-Site Requirements

The bulk of building shall be determined by the functional requirements of building design, the limitations imposed by the Alberta Building Code, and the following additional requirements.

- * The minimum side yard requirement shall be one and one-half (1.5) metres (5.0 ft.).
- * A rear yard of seven and one-half (7.5) metres (25.0 ft.) where not abutting a rear lane. A rear yard shall be five (5) metres (16.5 ft.) where abutting a rear lane.
- * Landscaping shall account for forty percent (40%) of the site.
- * Garbage storage areas shall be screened in a manner approved by the Department.

c) Materials

In keeping with the park setting of the Elkwater townsite, and the desire to harmonize with the natural surroundings, natural materials will be strongly encouraged for developments within the townsite. These include wood, masonry or brick for claddings. Roofs may be covered in wood shingles, shakes or asphalt shingles in colours that suit the natural setting. The judgement of the Department shall govern in these matters, materials not fitting the above description, but proposed for developments, must be approved. A sample of the proposed materials must be made available to the Department on application for a development permit.

d) On-Site Amenity

Rental accommodation shall be provided with outdoor, indoor or a combination of amenity areas intended for communal use by the residents of the development. The facilities should conform to the following criteria:

- * The spaces shall be large enough and so designed as to facilitate a variety of functions such as sitting, sun-bathing, children's play, cooking, dining or entertaining.
- * The amenity areas should also include recreation activities such as tennis, shuffleboard, volleyball, or other activities consistent with the recreational nature of the townsite and the need to provide adjunct recreational facilities as part of the marketing strategy of such developments.
- * An area equivalent to 40% of the total site area shall be allocated to the provision of recreation amenities.

3. Resort Commercial (RC1)

a) Building Edge

- retail exposure

Articulation of the building face or recessed doorways to create additional views into display windows; and/or

Outdoor extensions intended for restaurant and cafe seating, or other outdoor activities.

The building shall be located no greater than three (3) metres (10 ft.) from the setback line with a zone of "mutual interchange" occurring one and one-half (1.5) metres (5 ft.) on either side of this line. Construction may take place anywhere within the zone as long as the average of protrusions and recesses are roughly equal.

- transparency

Window areas should be maximized in order to provide diversity and interest to the experience of the street.

- building frontage

The building edge should help to ensure diversity and a scale consistent with the intent for the townsite.

The building edge shall be continuous for a minimum of sixty-five percent (65%) of the property frontage.

- weather protection

The building should enhance pedestrian comfort by employing means such as the following:

- arcades
- awnings
- canopies
- marquees, and
- glazed areas intended to permit winter use of outdoor areas.

- signage

The Department should ensure that signage in the resort motel area:

- clearly conveys necessary information (i.e. name of business, nature of goods and services offered);
- makes a positive contribution to the pedestrian environment (i.e. by providing colour, interest, area identity);
- avoids conflict with pedestrian movement, and with public information signage; and
- respects the privacy and sensory environment of pedestrians and building users (i.e. glare, noise).

b) On-Site Requirements

The bulk of building shall be determined by the functional requirements of building design, the limitations imposed by the Alberta Building Code, and the following additional requirements.

- * a setback of two (2) metres (6.6 ft.) shall be required along 4th Avenue;
- * the minimum side yard requirement shall be one and one-half (1.5) metres (5.0 ft.), five (5) metres (16.5 ft.) where the side abuts a residential district; and
- * garbage storage areas shall be screened in a manner approved by the Department.

c) Materials

In keeping with the park setting of Elkwater and the desire to harmonize with the natural surroundings, only natural materials will be considered for developments within the townsite. These include wood, masonry or brick for claddings. Roofs may be covered in wood shingles, shakes or asphalt shingles in colours that suit the natural setting. The judgement of the Department shall govern in these matters. Materials not fitting the above description, but proposed for developments, must be approved. A sample of the proposed material must be made available to the Department on application for a development permit.

4. Special Commercial (SC)

Because of the potentially wide ranging character of development within the Special Commercial category, only general conditions may be applied to this designation. In this regard, the following policies have been identified.

- a) it shall be clearly demonstrated to the satisfaction of the Department that the need for the commercial use is justified;
- b) adequate provision shall be made for boat docking and parking of vehicles generated by the proposed use;
- c) facilities for the sale of gas and oil for the fueling of marina craft shall be provided only at the existing marina, and adequate provision shall be made for fire safety and similar measures;
- d) lighting poles and other surface utilities shall be carefully sited, and advertisements and signs for the concession shall be designed in order to maintain the appearance and amenity of the streetscape;
- e) adequate opportunity will be provided to surrounding property owners to examine and make representations concerning future development;
- f) a development plan will be filed with the Department indicating the detailed layout of any proposed development;
- g) a development agreement will be entered into by the applicant and the Department to ensure that the development takes place in accordance with the approved development plan; and
- h) the developer will be required to post a performance bond or bonds with the Department.

Guidance shall be taken from the building edge and on-site requirements identified in Section 3.

5. Limited Commercial (LC)

a) Building Edge

There shall be a minimum setback of ten (10) metres (33 ft.).

Landscaped buffers shall be provided to maintain the forecasted character of the site.

b) On-Site Requirements

Parking areas shall allow for intermittent landscaping to both screen the impact of the parking area and to maintain the forested character of the site.

Service areas shall be adequately screened and garbage disposal areas equipped with screened storage areas.

c) Materials

In keeping with the intent of the plan to establish a common theme in terms of cladding and design, future development - retrofitting shall be undertaken in a manner complementary to the RCI designation. The judgement of the Department shall govern in these matters.

Materials not fitting this description, but proposed for development, must be approved and a sample of the proposed materials made available to the Department on application for a development permit.

6. Overnight Group Camping - Institutional (GCI)

Further development shall be approved by the Department. Cladding and building design of future expansion or redevelopment shall be in harmony with the natural setting. The development plan prepared by the applicant shall indicate the detailed layout of the proposed ultimate development. When considering applications for expansion, redevelopment or relocation, consideration shall be given to the following:

- a) the location of the proposed site relative to the land use and development policies stated in the Plan;
- b) the appropriateness of the topography, soils, vegetation coverage and drainage of the site relative to the proposed uses;
- c) the compatibility of the proposed use with existing and anticipated surrounding uses;
- d) the adequacy of existing or proposed roads to provide access for traffic to the site;
- e) the adequacy of proposed water supply, sewage disposal, hydro, gas, etc., to be provided; and
- f) the adequacy of open space, parking facilities, buffering, etc.

It is desirable that a development agreement be entered into by the applicant with the Department to ensure that the development takes place in accordance with the approved development plan. Surrounding property owners should be afforded an adequate opportunity to examine and make representation to the Department concerning the proposed development.

7. Environmental Reserve (ER)

The major purpose of this designation is to provide an undisturbed, natural environment for the quiet recreational enjoyment of visitors to Elkwater on a year-round basis. A primary policy of the Plan and this designation is that visitors be able to enjoy the peace, solitude, ruggedness, variety, and beauty of this area of the Cypress Hills within a near urban environment.

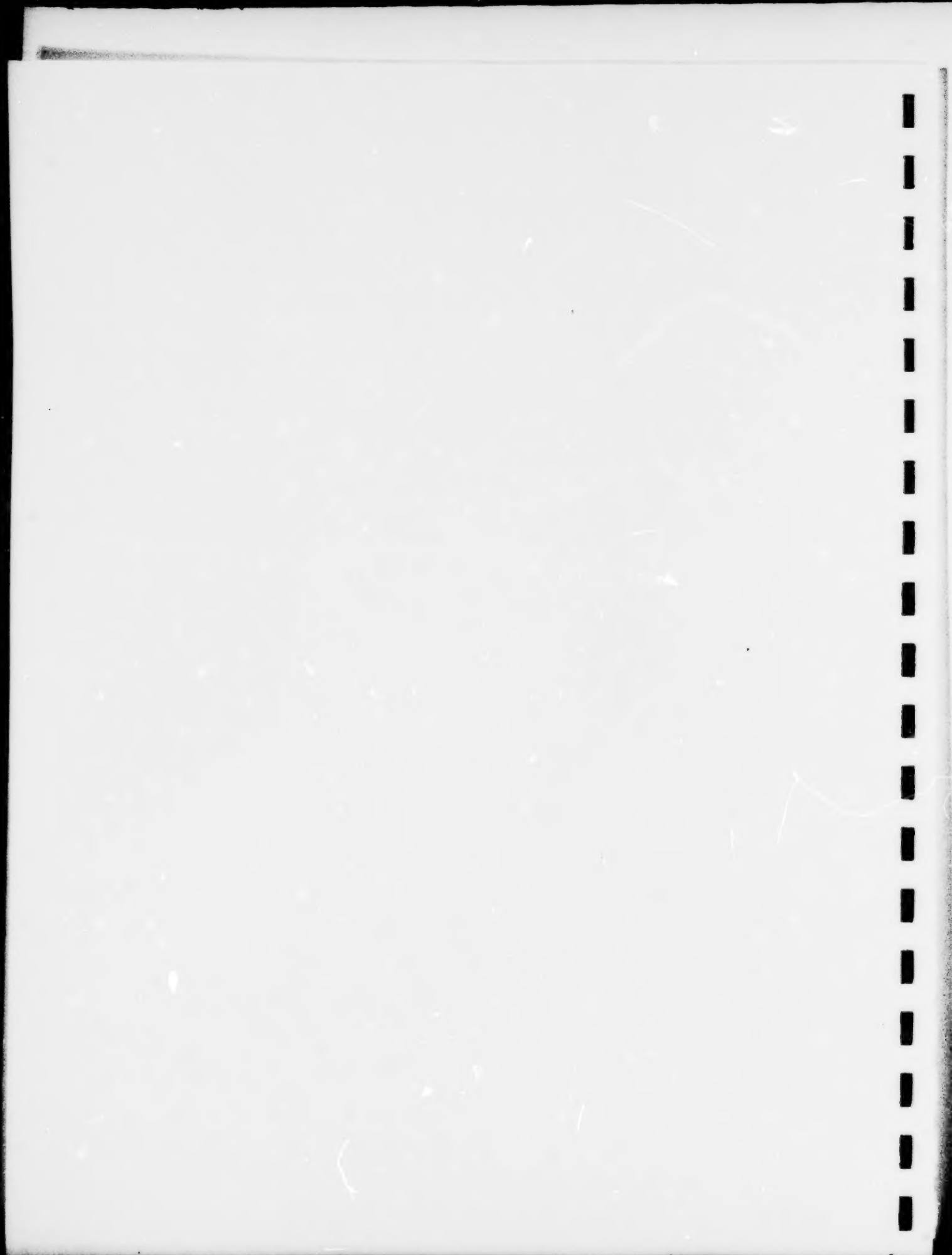
In order to attain this objective, a series of planning requirements need to be implemented and are identified in the following.

- a) A comprehensive system of trails should be planned and constructed covering the entire area of this land use designation.
 - * The trail system should embrace one or more trails running the entire length of the park, as well as feeder trails coming in from various points of access.
 - * Most trails should be for pedestrian use only. Separate trails should be planned for horse use, thereby minimizing pedestrian - equestrian conflicts.
 - * Efforts should be made to capitalize on special features such as vistas and natural phenomena to produce a variety of attractions and to disperse users.
 - * Alberta Recreation and Parks' standards of trail construction should be adopted and followed for the town.
 - * Standards of trail maintenance embodying brushing of trails, placing of signs, etc., need to be adopted and followed.

- * Regulations need to be adopted and enforced prohibiting motorized travel on trails, as well as restricting certain trails to pedestrian use only.
- b) Protective measures should be taken to provide a proper sanctuary for wildlife.
- * Motorcycle use should be prohibited.
 - * Seclusion should be provided to protect the beaver colonies in the various streams flowing into Elkwater Lake as the ponds which are created attract a variety of bird life.
- c) Interpretive and tour programmes need to be organized to acquaint the public with the great opportunity to observe wildlife characteristic of the Cypress Hills in their natural habitats. Management of forested lands should make use of opportunities to enhance the recreational and educational values of the park.
- d) Educational values of the environmental reserve need to be listed, defined and extended.
- * Efforts should be made to stimulate public interest in this area through study of its biological history.
 - * Present and future trails, nature walks, viewpoints, study sites, etc., should be catalogued and made readily available.
 - * The public should be provided with an opportunity to gain knowledge of the reserve from past, present and future management practices.

8. Administration and Maintenance (AM)

Buildings shall be designed consistent with the general intent for the townsite and should impact minimally on the forested setting. The building compound shall provide for adequate distances from roadways to allow for extensive planting and minimum disturbance to tree cover. In no area shall the distance referred to above be less than six (6) metres, (20 ft.). Buildings shall not exceed two storeys in height and materials shall be consistent with the natural setting.



APPENDIX B

DEVELOPMENT CONTROL GUIDELINES

The townsite of Elkwater was developed essentially during a period when there was little development control in small municipalities. Located on Crown Land within a provincial park, it appears that this community has had to contend with even fewer guidelines when developing or upgrading existing cottages, administrative facilities and commercial services. In the following, this matter is examined from two perspectives; first, from the existing approval process and, second from proposed alterations to the approval process.

1. Existing Approval Process

The current development review process practiced by Alberta Recreation and Parks consists of several levels of transmittals and approvals, initiated by the local Park Superintendent and culminating with the Department's head office in Edmonton. A leaseholder wishing to construct a building must file a "Commission to Construct Form", plus one set of plans to the local Park Superintendent in Elkwater. The building is reviewed for dimensions only, the basic criteria being a minimum setback of twenty (20) feet, and sideyards of five (5) feet. This information is then forwarded to the Regional Office in Vulcan, Alberta, and then it proceeds to the Edmonton headquarters for final review and approval.

The proposed sewage disposal system is also reviewed, and only holding tanks are acceptable at the present time. If permission is granted to construct, then the leaseholder is required to obtain Plumbing and Electrical Permits from the City of Medicine Hat prior to any construction commencing. The building permit issued by the Park Superintendent is free of charge.

2. Proposed Alterations to Approval Process

If these proposed design guidelines are implemented, the development review process will become more encompassing than at present. The intent, however, is not to overly bureaucratize the system, only to make it more explicit and tune it to the desired result in new townsite development and upgrading of existing facilities.

For undeveloped lots or lots that are to be upgraded, a potential leaseholder should first apply for a development permit and concurrent option to lease of 12 months duration. If, after the year, the improvements have been made, then a lease should be entered into. If development has not reached a stage satisfactory for the issuance of the lease, then the permit may be extended for a maximum of 6 additional months. The intent of this statement is to ensure that leases are obtained only by parties who have demonstrated a commitment to develop or upgrade their lot. Failing to develop one's lot within the constraints outlined above should result in a six month waiting period before another application can be filed.

A centralized approval process for development is recommended that will have the authority to review and approve or reject development permits. As private development of public facilities is to be encouraged, then compliance with the Alberta Building Code will become a more important aspect for review, and should be performed by an approving authority who is familiar with, and capable of interpreting the Code. The approving authority should be responsible for ensuring compliance with design guidelines and should, therefore, possess a knowledge of architectural treatments and techniques. It is also important that the approving authority be allowed discretionary judgement in the enforcement of these guidelines. The Department of Recreation and Parks will retain the authority to review and approve all forms of development within Elkwater.

Once development approval has been obtained, then local enforcement of the design guidelines should be maintained. No clearing of sites for new construction or redevelopment should commence until the proposed construction has been staked out and approved by the Department. Also, no trees, except dead or dying trees, should be removed at any time without prior consent from the Department.

Local issuance of plumbing and electrical permits should continue, and liaison with other authorities such as Municipal Engineering and Public Health should also be kept at the local level. The Department should conduct periodic reviews of construction progress and ensure that the unsightly accumulation of building materials does not occur.

3. Promotion of Upgrading and New Development

As stated at the beginning of this Appendix, the Department must accept its responsibility to upgrade areas under its direct control if it wishes to encourage private development and upgrading of facilities. This process can happen at a small scale and still be effective. As well as developing a catalogue of benches, planters and street lighting fixtures, for example, it could also encourage common use of materials or treatment of lots. If attractive garbage enclosures are desired, then a large supply of common building materials, such as cedar siding, could be arranged. Alberta Recreation and Parks can also develop information brochures that can be made available to existing and potential leases, giving advice on the design and construction of cottages, sheds, decks and garbage enclosures.

4. Existing Facilities and the Application of Design Guidelines

The proposed design guidelines for development and the proposed process by which approvals will be made with regard to development must take into account the fact that a number of facilities presently exist. Although the new requirements for development do not require the immediate change of existing installations to comply with the intent of the new

regulations, every effort should be made to encourage the retrofit of existing facilities to meet the requirements of the proposed guidelines. All modifications to existing facilities are subject to the approvals process as outlined above, and the following process is suggested for the orderly management of the incremental upgrading of existing installations.

a) New Leases of Existing Facilities

New leases on existing cottages and commercial establishments shall be required to submit to an evaluation of the facility to determine the present degree of compliance with the intent of the proposed development guidelines. Should the facility be deemed substantially deficient by the Department, a requirement to upgrade the existing facility structurally, architecturally, or with regard to mechanical, electrical or servicing deficiencies, as may be required, shall form part of the lease agreement with a compliance period specified by Alberta Recreation and Parks.

b) Existing Facilities that are Modified by Existing Leases

Existing leases shall be evaluated when an application is made for additions or changes to the existing facility, and applications shall be considered on an individual basis. The evaluation of the Department shall form the basis of provisions for compliance with the development guidelines and shall form part of the approval.

c) Present Leases not in Need of Upgrading

Leases presently in force shall be evaluated for the degree of compliance with the proposed development guidelines for future reference at the time of lease renewal. The upgrading requirements would then be included at the time of lease renegotiation in a manner similar to that outlined for the new lease on existing facilities.

APPENDIX C

ELKWATER LANDSCAPE GUIDELINES

The protection and enhancement of the unique natural beauty, environment and greenspace within Elkwater will be instrumental in attracting regional tourists to visit and vacation in this resort. Therefore, it is the intent of the following landscape guidelines to:

1. ensure that the local stock of native trees and shrubs be replenished following construction activities;
2. provide visual buffering and enhance the attractiveness of both the private and the public environment;
3. safeguard and enhance property values and to protect public and private investment;
4. ensure that a unique and memorable image is created for the community; and
5. preserve and protect the unique lakeshore identity and enhance the economic base attracted to Elkwater by such factors.

For the purposes of implementing the townsite plan, a series of landscape requirements shall be required by Alberta Recreation and Parks and private developers. Except as noted by the Department, the landscaping requirements described in the following shall apply to all land located in Elkwater. Such landscaping requirements shall become applicable to each multiple lot - development when an application for a building permit is made. These requirements remain with any subsequent owner.

A. Procedures

1. The developer shall provide a landscape plan when application is made for a building permit on any lands where the landscaping requirements of this section are required (all development other than single cottage lots). Such building permit applications shall be accompanied by a site plan containing the following information:
 - a) the date, scale, north point, title of owner/proponent;
 - b) the location of existing boundary lines and dimensions of the tract of land;
 - c) the centre of existing watercourses, approximate location of drainage features, and the location and size of existing and proposed streets and alleys, existing and proposed utility easements on or adjacent to the lot, and existing and proposed sidewalks adjacent to the street;
 - d) the location, size and type (tree, shrub, ground cover or grass) of proposed landscaping in proposed landscaped areas, and the location and size of proposed landscaped areas;
 - e) the location and species of existing trees having at least 15 cm or larger caliper;
 - f) an indication of how the applicant plans to protect the existing trees, which are proposed to be retained, from damage during construction; and
 - g) certification of a professional landscape architect that the plans satisfy the requirements as outlined in this section.

2. Landscaping plans shall be approved by the Department.
3. An inspection fee in the amount to be set by Alberta Recreation and Parks shall be collected at the time of application for a certificate of occupancy.
4. The Department shall inspect the site within 3 months and again at 12 months after issuance of the certificate of occupancy to ensure compliance with the landscaping requirements.
5. If, at the time of application for a certificate of occupancy, the required landscaping is not yet in place, the developer/owner shall make fiscal arrangements (by bond, certificate of deposit, or letter of credit) satisfactory to Alberta Recreation and Parks in the amount equivalent to three dollars per square foot (\$30 per sq. metre) of required landscaping not yet in place to ensure that the required landscaping shall be installed.

B. Landscaping Requirements

1. Without limiting the generality of Section A, the landscape plan shall include, where applicable, the following:
 - a) conceptual design of public open space system to include all walkways, walkway bridges, bicycle paths, active and passive play areas;
 - b) conceptual design of organized and unorganized play facilities and equipment in public open space;
 - c) conceptual design of outdoor furniture, graphics, signs, and lighting in public open space;

- d) conceptual design, working drawings and specifications for planting;
 - e) conceptual design, working drawings and specifications for grading, fill and topsoil, all prepared in accordance with the lot grading plan.
2. At least 20% of the area of the street yard shall be included within the landscaped area.
3. In the street yard, at least one tree of at least two metres in initial height (either existing or planted) and 5 cm caliper size shall be included and replaced as necessary as per the following rations:
- a) in street yards less than 465 square metres, 1 tree per 70 square metres, or fraction thereof, of street yard;
 - b) in street yards between 465 and 930 square metres, 1 tree per 93 square metres, or fraction thereof, of street yard area over 930 square metres is added to the requirement of 10 trees;
 - c) the developer shall guarantee the material for one year from the date of planting.

An existing or planted tree (except populus tremuloides), which is at least 15 cm in diameter and at least 4.5 m tall shall be considered as two trees for the purpose of satisfying this subsection.

The existing natural character of the Cypress Hills shall be preserved to the extent reasonable and feasible. As an example of this, in an area of the street yard containing a stand of trees, the developer shall use his best effort to preserve such trees.

4. The impervious cover within the area encompassed by the dripline of any tree in a required landscaped area may not exceed fifty percent of such area.
5. Vehicular use areas, parking areas, parking lots and their parked vehicles shall have effective buffering from the street side, other major recreation areas and the lake, where applicable.
 - a) a minimum amount of the total area of all vehicular use areas and parking areas of a lot shall be devoted to landscaped islands, peninsulas, or medians;
 - b) the minimum total area in such buffer areas shall be 9.2 square metres (100 sq. ft). for each 10 parking spaces for both the street yard and non-street yard areas;
 - c) the number, size, and shape of islands, medians, etc. in both the street and non-street yard areas shall be at the discretion of the owner; however, no parking space shall be located further than 15 m (50 ft.) from a landscaped island, etc. All buffer areas stated in the preceeding shall be, more or less, evenly distributed throughout such parking areas; however, the distribution and location of buffers may be adjusted to accommodate existing trees or natural features so long as the total area requirements for buffer zones for the respective parking areas above, are satisfied;
 - d) all required landscaping shall be irrigated by either an underground sprinkling system or a base attachment within 30 m (100 ft.) of all landscaping provided. However a hose attachment within 61 m (200 ft.) of all landscaping in non-street yards shall be sufficient.

6. All landscaping which is adjacent to pavement shall be protected with concrete curbs or equivalent barriers (such as a car bumper, railroad tie, continuous border plants) when necessary to protect trees.
7. Landscaping shall not obstruct the view between the street and the access drives and parking aisles near the street yard entries and exists, nor shall any landscaping which creates an obstruction of view be located in the radius of any curb.
8. Required landscaping areas shall be continuously maintained free of debris, weeds, and litter.
9. The developer shall contour, grade, provide topsoil to a depth of at least 15 cm (6 inches) in accordance with approved contour plans.
10. Alberta Recreation and Parks may provide assistance as to how to plant trees, what trees grow best in the Cypress Hills and how to maintain such trees.

APPENDIX D

WATER STORAGE ANALYSIS

$$\text{Total Storage} = A + B + C$$

$$A = \text{Fire Flow say } 1,000 \text{ Igpm} \times 60 \text{ min.} = 60,000 \text{ Igpm} = 272 \text{ m}^3$$

$$B = 25\% \text{ of maximum day}$$

$$\text{Maximum day} = 2.5 \text{ (peak factor)} \times 900 \text{ m}^3/\text{day} = 2,250 = 565 \text{ m}^3$$

$$C = 25\% \times (A + B) = 209 \text{ m}^3$$

$$\text{Total Storage} - 1,046 \text{ m}^3$$

$$\text{Present Storage} - 840 \text{ m}^3$$

$$\text{Add in 10 Years} - 200 \text{ m}^3$$

$$\text{Approximate Cost} = \underline{\$160,000.00}$$



APPENDIX E

DETAILED COST ANALYSIS OF FACILITY IMPROVEMENTS

1. WATER SYSTEM

Commercial Area

525 150 Ø P.E.	\$60/m	\$31,500
3 valves	\$450 ea	1,350
10 services	\$500 ea	5,000
3 fire hydrants	\$3,000 ea	9,000
engineering	10%	4,685
contingency	25%	<u>12,884</u>
		\$64,419
	say	\$64,000

Permanent and Rental Housing

365 150 Ø P.E.	\$60/m	\$21,900
2 valves	\$450 ea	900
15 services	\$550 ea	8,250
2 fire hydrants	\$3,000 ea	6,000
engineering	10%	3,700
contingency	25%	<u>10,200</u>
		\$50,950
	say	\$51,000

General Improvements

water storage expansion (200 m) & fire pump		\$150,000
provide looping - 60 m 38 Ø pipe	\$45/m	\$2,700
development of two wells	\$5,000 ea	10,000
4 fire hydrants	\$3,000 ea	12,000
150 mm Ø w.m. 75 m	\$60/m	4,500
engineering	10%	17,920
contingency	25%	<u>49,280</u>
		\$246,400
	say	\$246,000

2. SEWAGE SYSTEM

Permanent & Rental Housing Area

525 250 Ø PVC	\$70/m	\$36,750
7 manholes	\$2,500 ea	17,500
15 services connections	\$500 ea	7,500
engineering	10%	6,175
contingency	25%	<u>17,000</u>
		\$84,925
	say	\$85,000

General Improvements

lift station improvements, float	\$9,000 ea	18,000
controls and ventilation		
engineering	10%	1,800
contingency	25%	<u>4,750</u>
		\$24,550
	say	\$25,000

Sewage Lagoon Improvements

lagoon 254,000 m ³	\$3.50/m ³	889,000
dump station	\$4,000	4,000
engineering	10%	89,300
contingency	25%	<u>245,500</u>
		\$1,227,800
	say	\$1,228,000

3. NATURAL GAS AND POWER

The cost of expanding the utilities system will be charged to the developer. Usually, the utility company will demand partial payment before construction starts, and full payment upon completion of construction.

The exact cost of the servicing depends on the location, and load required (e.g. cfm for natural gas or kw, single or three phase, for electricity) by the development.

4. SOLID WASTE

Solid waste pickup and disposal	\$60,000
---------------------------------	----------

- 12 months/year contract for waste disposal
- escalation in price due to length of haul from Elkwater Townsite to Redcliff
- accounts for increase in waste volume due to townsite development



APPENDIX F

Summary of 1981 Cypress Hills Provincial Park Master Plan Issues Affecting the Elkwater Townsite Development Plan

<u>ISSUE</u>	<u>MASTER PLAN RECOMMENDATION</u>	<u>ELKWATER TOWNSITE PLAN RECOMMENDATION</u>
Relocation of Girl Guide Camp	Private group camps will remain in their present location. (Page 44)	Girl Guide Camp will be relocated to the site south of Block 11, and the existing area redeveloped into a campground.
Swimming Pool	A swimming pool will not be constructed. (Page 47)	The Department will support the establish- ment of a swimming pool, if local municipal authorities or organizations are willing to contribute to the cost of such a facility.
Motel	The present motel will continue to be operated, with details of the operations to be negotiated with the leaseholder. (Page 81)	A new motel (50 units) will be developed in Block 14.
Infilling of Cottage Lots	No new cottage lot leases will be issued. (Page 79)	New cottage lot leases may be issued, except where they would detract from the aesthetics of the townsite or where the land base only has a marginal development potential.
Intensive Recreation Facilities	The following facilities will not be provided: hockey rink/tennis courts/sports field/sport facilities. (Page 47)	Intensive recreation facilities and areas may be developed by the private sector in the Elkwater Recreation Centre.
Campground Expansion	No additional camping sites will be developed during the five year span of the Master Plan. (Page 40)	Expand Fire Rock and Beaver Creek campgrounds.

APPENDIX F
(Cont'd.)

<u>ISSUE</u>	<u>MASTER PLAN RECOMMENDATION</u>	<u>ELKWATER TOWNSITE PLAN RECOMMENDATION</u>
Community Centre	All community facilities will be allowed to remain on their present site.	The Community hall and Alliance church will be relocated to the Elkwater Community Area.
Cottage Priority Area	All cottages will be placed in one of four priority areas, to allow their acquisition by the Department on a priority basis.	All cottages will be in the Priority Area Four. The townsite will remain a viable community for not less than the next 40 years.
	(Page 82)	
	(Page 77)	

ELKWATER LAKE

Water Skiing
take off point

Campers
Beach
Area

Elkwater
Recreation
Centre

Parking
Expansion

Expanded
Commercial
Area

Expand
Beaver Creek
Campground

Expand
Fire Rock
Campground

Ferguson
Hill Road

ELKWATER LAKE

Elkwater
Recreation
Centre

Parking
Expansion

Expanded
Commercial
Area

Ferguson
Hill Road:

Potential Pool
location

Waterfront
Improvement

Resort
Motel

Townhouse Style
Rental Accomodation
and Gas Station

Realign
Main
Thoroughfare

Potential
Administration/Maintenance
Expansion

Staff Housing
Permanent

Condominium or
Rental Accomodation

Community
Park

Girl Guide
Camp

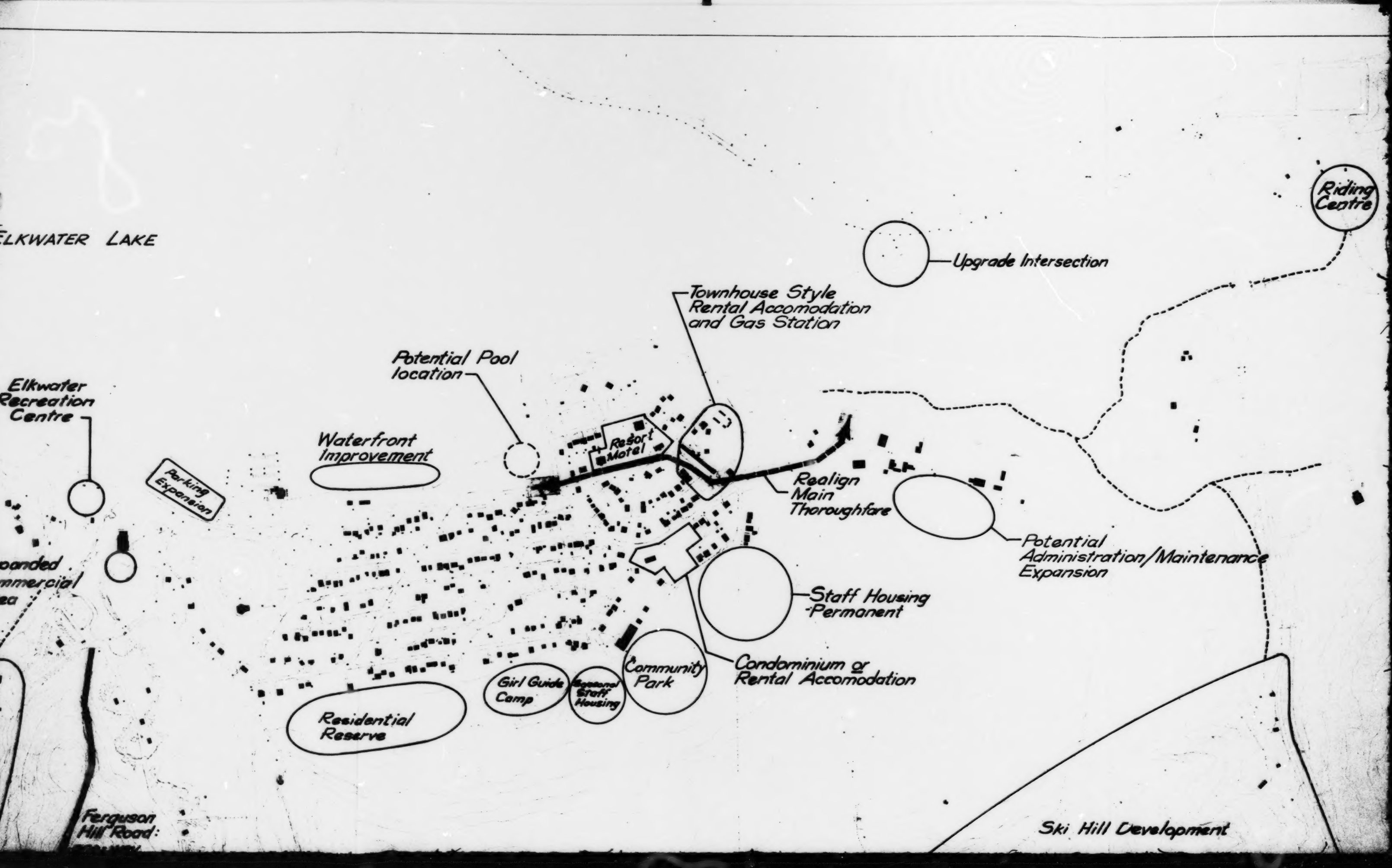
General
Staff
Housing

Residential
Reserve

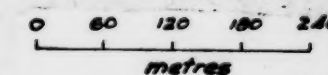
Upgrade Intersection

Riding
Centre

Ski Hill Development



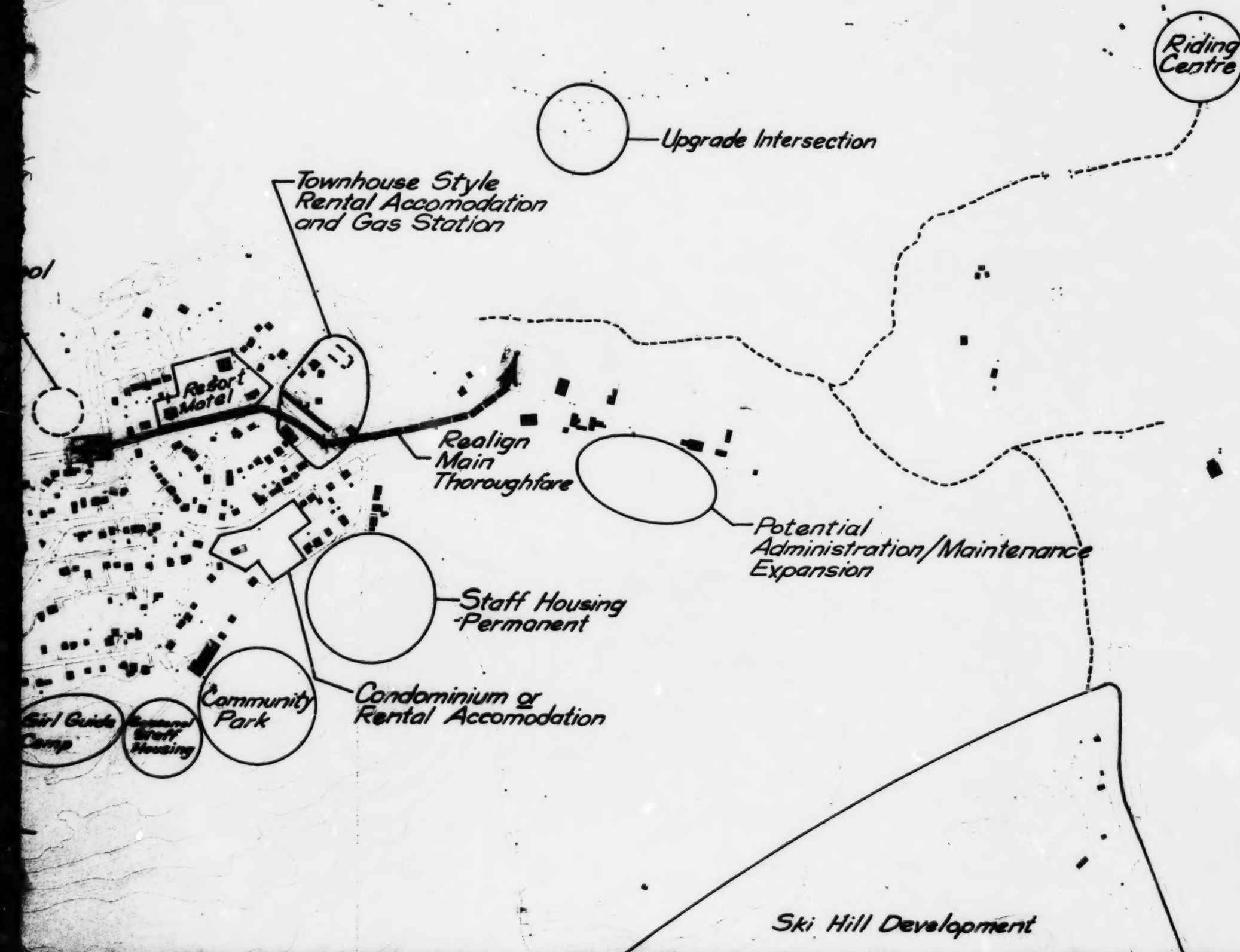
**ELKWATER
TOWNSITE
DEVELOPMENT PLAN
DRAFT**



Schematic

**PROPOSED
DEVELOPMENT AND
UPGRADING**

-  NEW DEVELOPMENT
OR UPGRADING
-  ROAD UPGRADING
-  TRAIL DEVELOPMENT



ELKWATER LAKE

○ Water Skiing
take off point

Campers
Beach
Area ○

Elkwater
Recreation
Centre ○

Parking
Expansion

Expanded
Commercial
Area ○

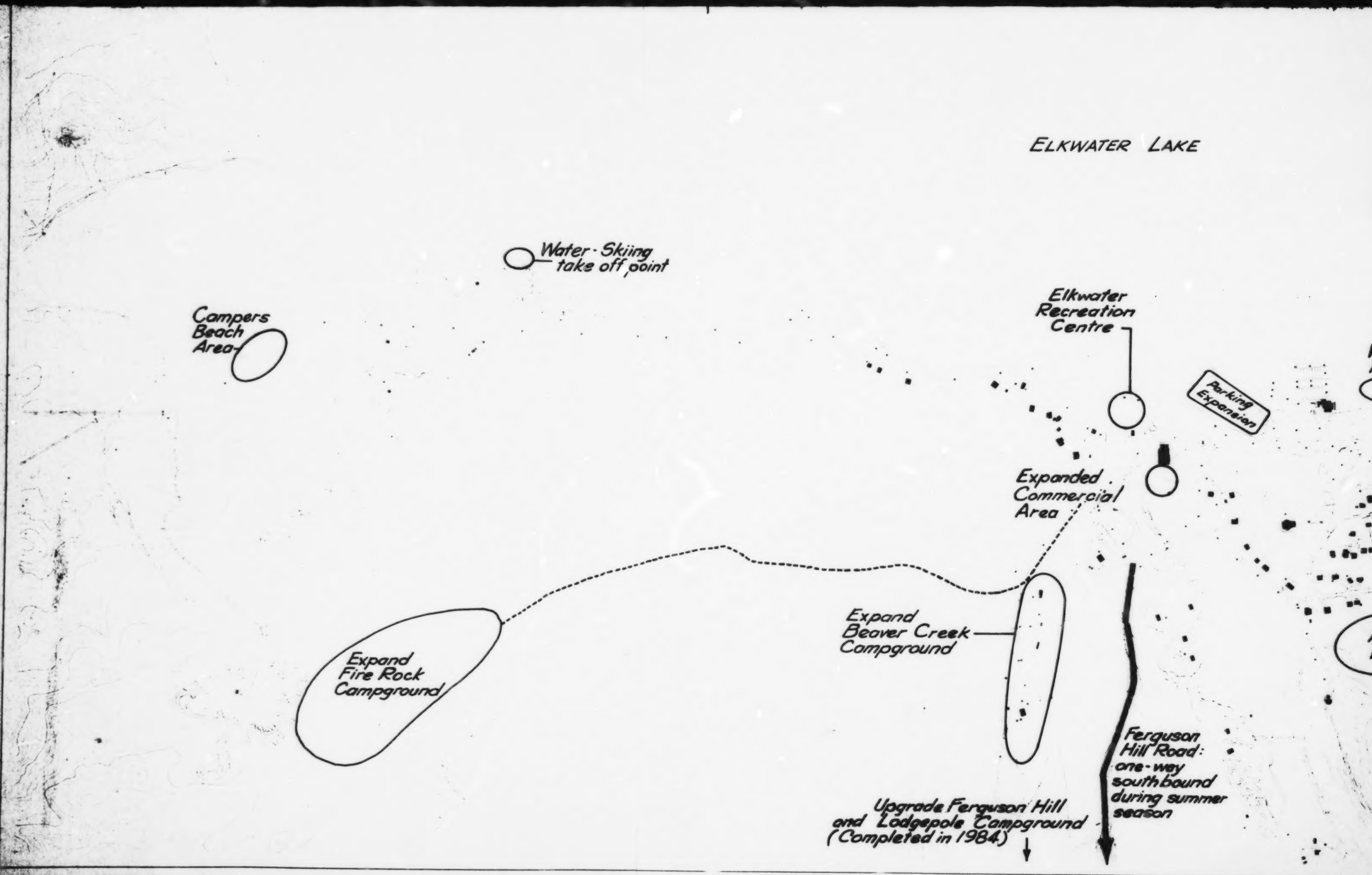
Expand
Fire Rock
Campground

Expand
Beaver Creek
Campground

Expand
Beaver Creek
Campground

Upgrade Ferguson Hill
and Lodgepole Campground
(Completed in 1984)

Ferguson
Hill Road:
one-way
southbound
during summer
season



ELK WATER LAKE

Riding
Centre

Upgrade Intersection

Townhouse Style
Rental Accomodation
and Gas Station

Potential Pool
location

Waterfront
Improvement

Resort
Motel

Realign
Main
Thoroughfare

Potential
Administration/Maintenance
Expansion

Staff Housing
-Permanent

Condominium or
Rental Accomodation

Community
Park

Girl Guide
Camp

Seasonal
Staff
Housing

Residential
Reserve

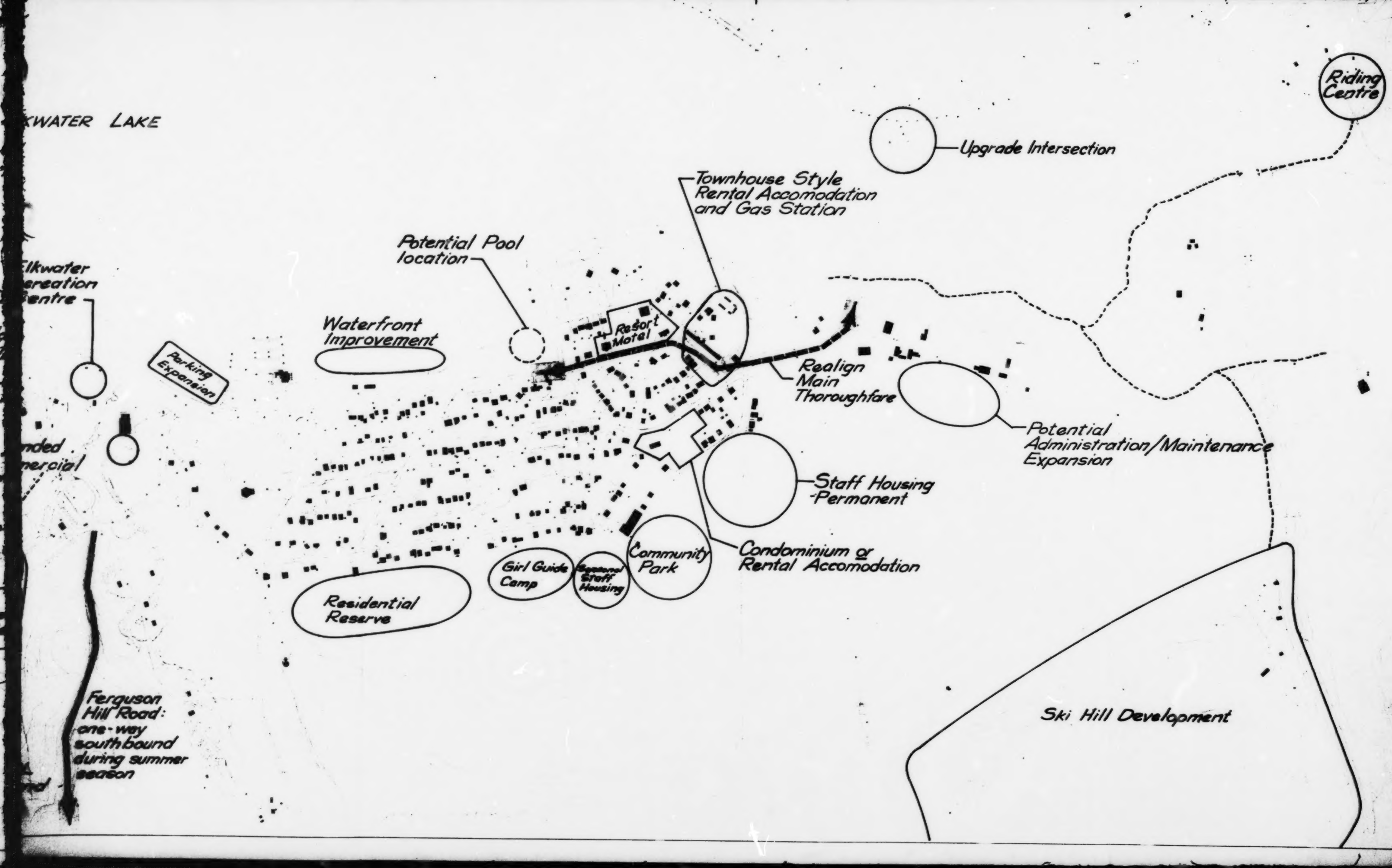
Parking
Expansion

Elkwater
recreation
Centre

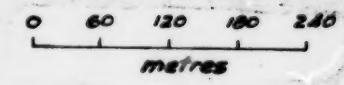
unded
mercial

Ferguson
Hill Road:
one-way
south bound
during summer
season

Ski Hill Development



DRAFT



Schematic

PROPOSED
DEVELOPMENT AND
UPGRADING

-  NEW DEVELOPMENT OR UPGRADING
-  ROAD UPGRADING
-  TRAIL DEVELOPMENT

